Service Manual

Programmable Tuner/Timer Unit

Vol. 8

Panasonic Omnivision VHS

Programmable Tuner/Timer Unit

PV-A35P

Programmable Tuner/Timer Unit PV-A35 is not available independently. Available set number is PV-4500 which consists of PV-4000 (deck) and PV-A35P.

SPECIFICATIONS

Power Source:	120 VAC ± 10%, 60 Hz ± 0.5%
Power Consumption:	Approx. 52 W DC out 12 V 1.6 A
Television System:	EIA Standard (525 lines, 60 field)
Timer:	2 weeks/8 programs programmable timer
Input:	VHF Ch2-Ch13, 75Ω unbalanced UHF Ch12-Ch83, 300Ω balanced RF (Ch3 or Ch4)
Output:	Video: (10P connector) 1.0 Vp-p, 75Ω unbalanced Audio: (10P connector) −6 dB, 600Ω unbalanced AC Outlet: 120 VAC Max 300 W unswitched
Operating Temperature:	32°F—104°F (0°C—40°C)
Operating Humidity:	10%—75%
Weight:	10.2 lbs (4.6 kg)
Dimensions:	11-7/16″(W) × 4-3/8″(H) × 9-11/16″(D) (289(W) × 110(H) × 245(D) mm)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

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CONTENTS

ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electronic circuits of ELECTRONIC PROGRAMMABLE TIMER/TUNER UNIT.

1. Test Equipments

To perform the electrical adjustments completely, the following equipments are required.

1.DVM (Digital Volt Meter)
Voltage Range: 0.001 - 50V
2.Frequency Counter
Frequency Range: 0 - 10MHz

2. Adjustment Procedures

These adjustment Procedures consist of the following sections.

1. Power Supply Section
2. Programmable Timer Section

2-1. Power Supply Section

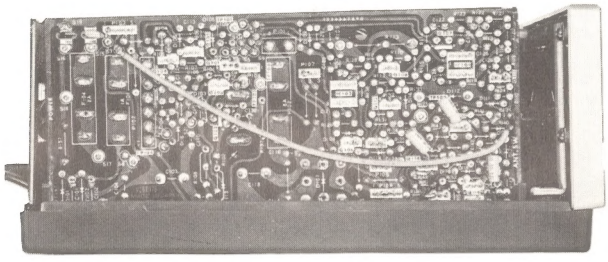


Fig.E1.

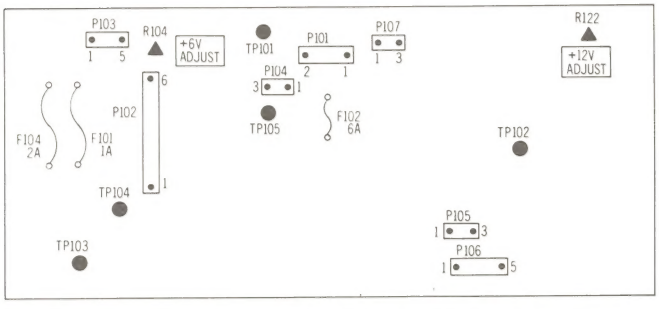
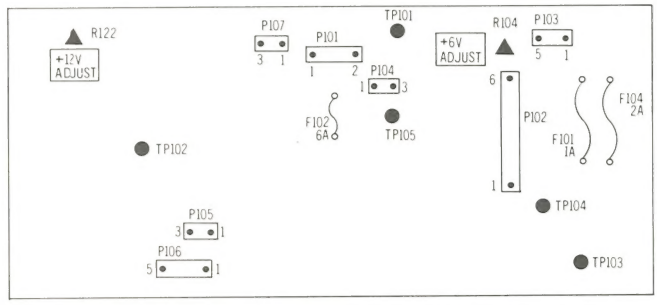


Fig.E2.



(From Components Side View)
Fig.E3.

2-1-1. +12 VDC Adjustment

Test Point: TP102
Adjustment: R122 (+12 VDC ADJ)

1. Check the AC input voltage for 120 VAC and then connect the Electronic Programmable Timer/Tuner Unit for the Deck as shown below.

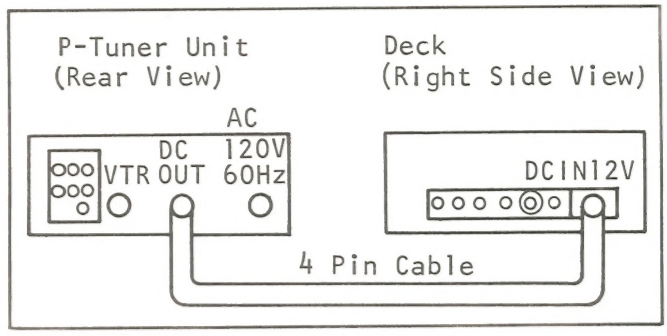
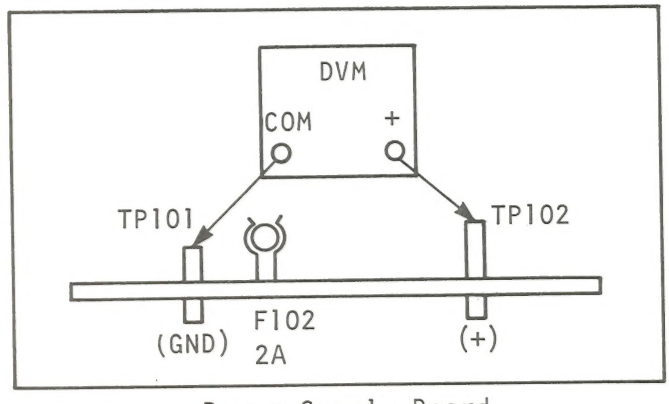


Fig.E4.

2. Turn on the Power Switch on the Deck.
3. Connect the DVM between TP102 (+) and TP101 (GND) on the Power Supply Board as shown below.

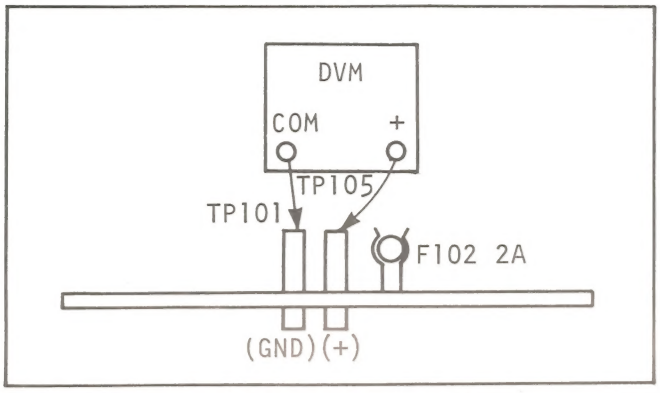


Power Supply Board
Fig.E5.

4. Adjust the +12 VDC ADJ (R122) for +12 ± 0.05 VDC.

2-1-2. +6 VDC Adjustment

Test Point: TP105
Adjustment: R104 (+6V DC ADJ)
1. Connect the DVM between TP105 (+) and TP101 (GND) on the Power Supply Board as shown below.

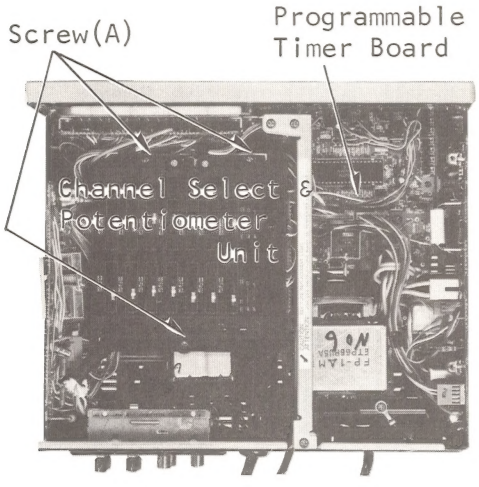


Power Supply Board
Fig.E6.

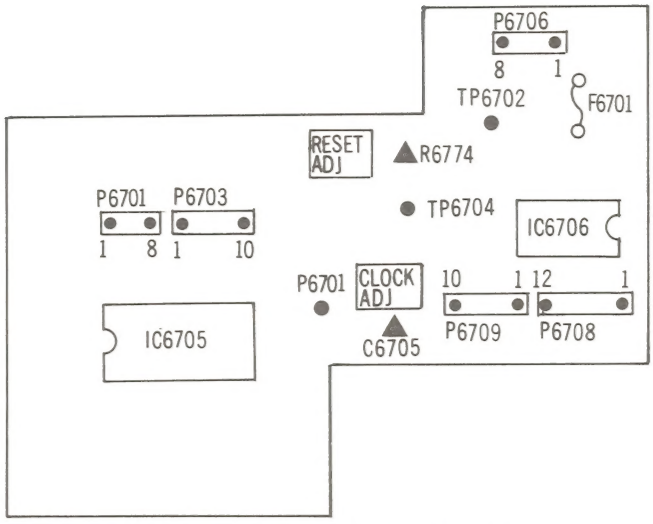
2. Adjust the +6 VDC ADJ (R104) for +5.65 ±0.05 VDC.

2-2. Programmable Timer Section

When this section is adjusted, Remove 3 screws(A) and channel select & potentiometer unit as shown below.



Programmable Timer Board Layout
(Up Side View)
Fig.E7.



Programmable Timer Board
(From Components Side View)
Fig.E8.

2-2-1. Clock Adjustment

Test Point: Pin 40 of IC6705 or IC6706
Adjustment: C6705 (CLOCK ADJ)

[CAUTION]
Since the trimmer C6705 (CLOCK ADJ) has already been adjusted critically in factory, do not try to adjust the trimmer except after replacing crystal (X6701) and trimmer (C6705).

1. Connect the Frequency Counter to Pin 40 of IC6705 or IC6706.
2. Adjust the CLOCK ADJ (C6705) for 262,144 ± 5 Hz.
   (Since this frequency is used for clock of timer, it is required to as precisely as possible.)

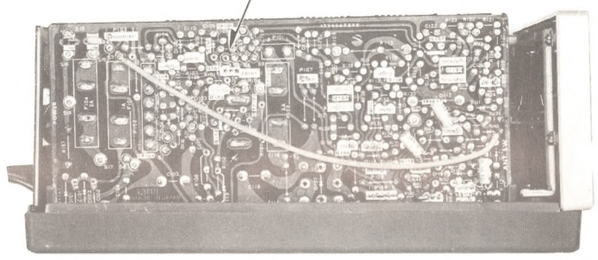
2-2-2. Reset Voltage Adjustment

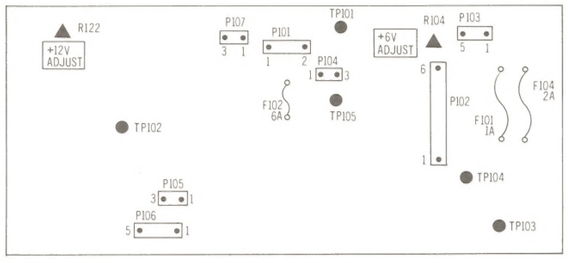
Test Points: TP6702, TP105
Adjustment: R6774 (RESET VOL ADJ)
1. Connect the VTVM to TP6702 on the Programmable timer board.
2. Adjust the +6 VDC ADJ (R104) on the Power Supply board (See Fig. E6) to 4.0 ± 0.05 V at TP6702 on the programmable timer board.
3. Turn the RESET VOL ADJ (R6774) on the same board fully C.W.
4. Slowly adjust the RESET VOL ADJ (R6774) C.C.W. and find the extingushing point of the timer display tube.
5. Set the +6 VDC ADJ (R104) to 5.65 VDC at TP105 on the power supply board.

Location of Test Points and Control

Power Supply C.B.A.	TV Demodulator C.B.A.	Programmable Timer C.B.A.
(VEPS0113A1)	(VEPS0720A1)	(VEPS0723A1)

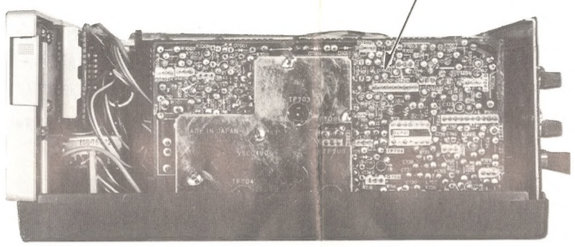
Power Supply C.B.A.

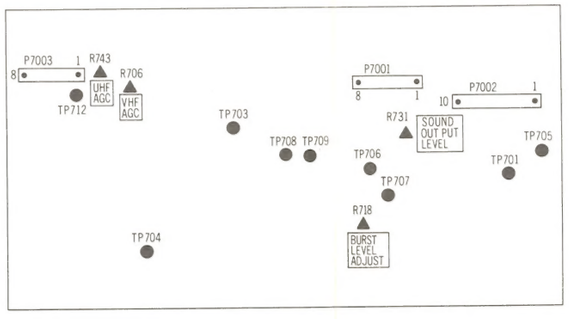




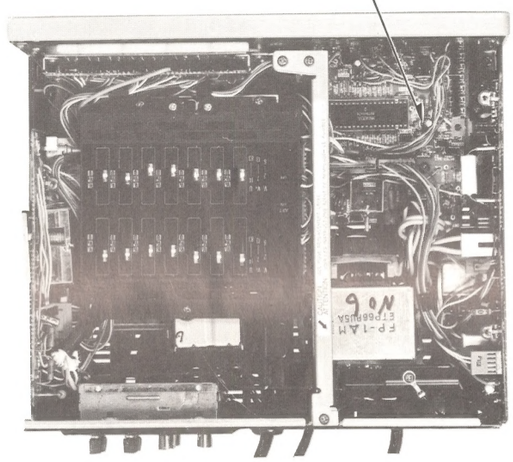
(From Components Side View)

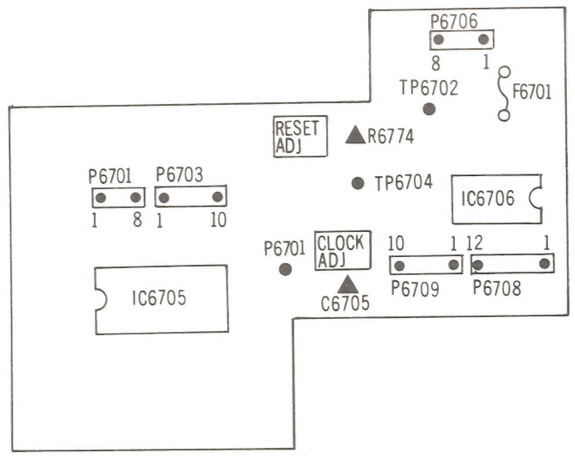
TV Demodulator C.B.A.



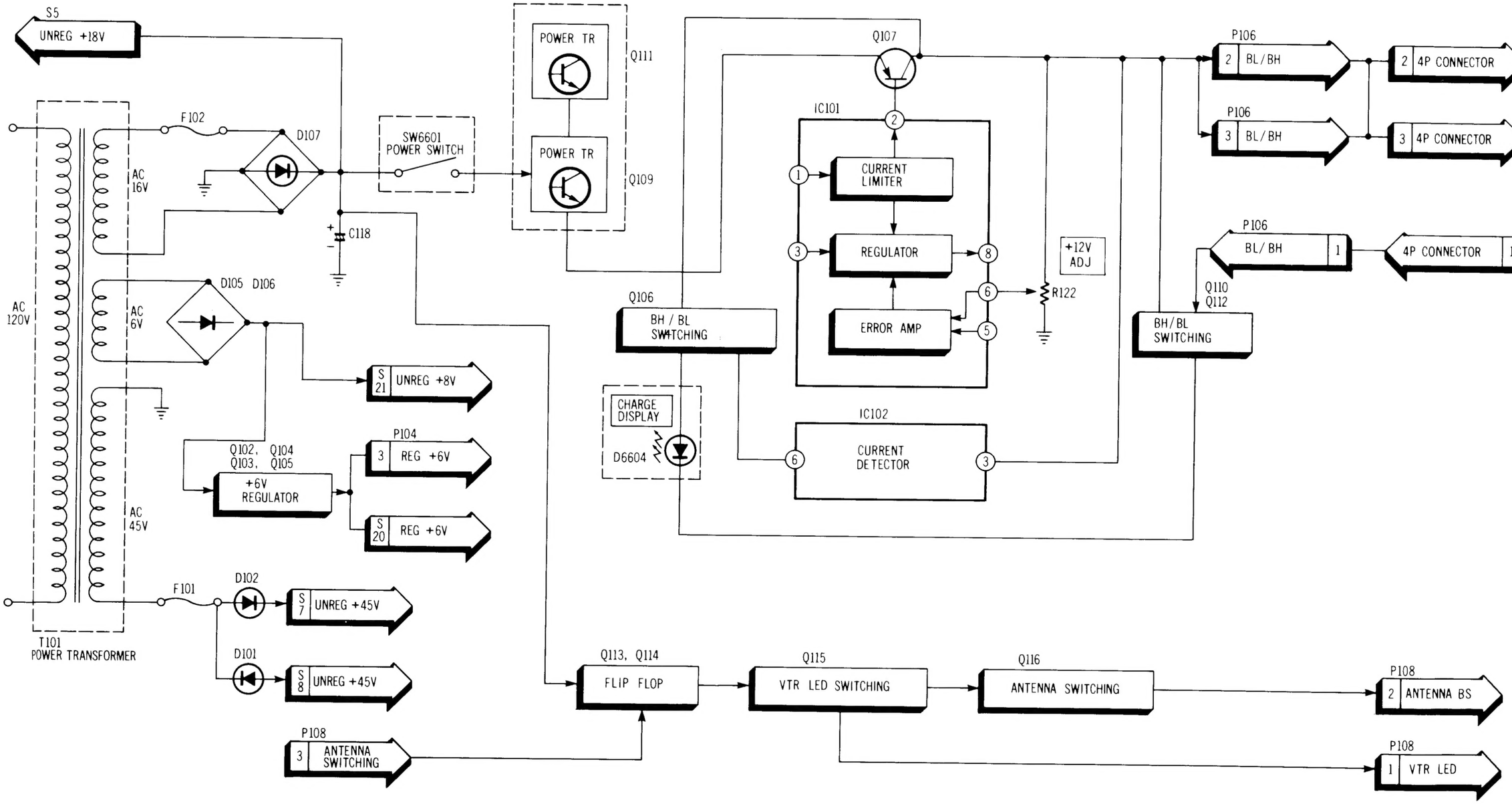


Programmable Timer C.B.A.

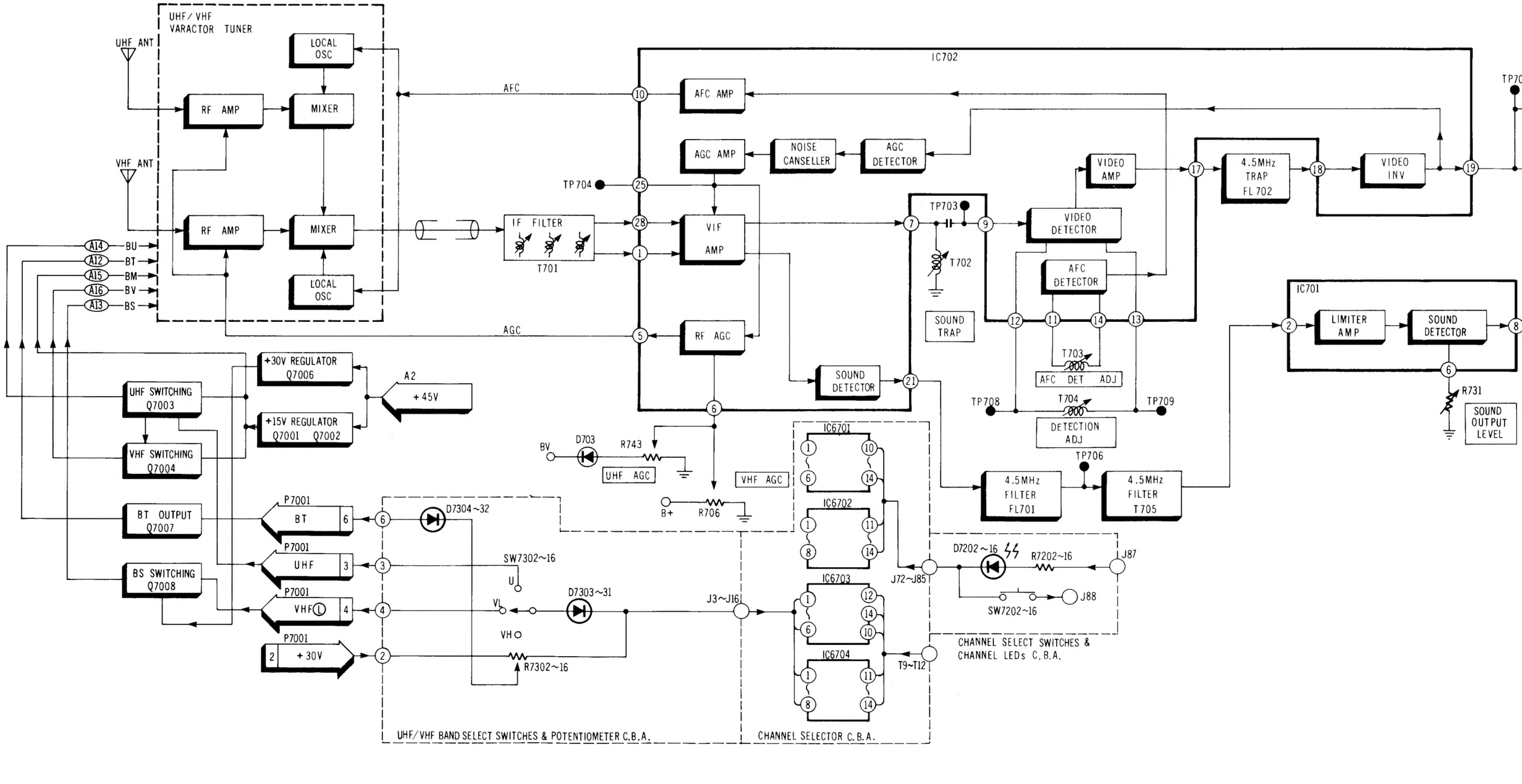




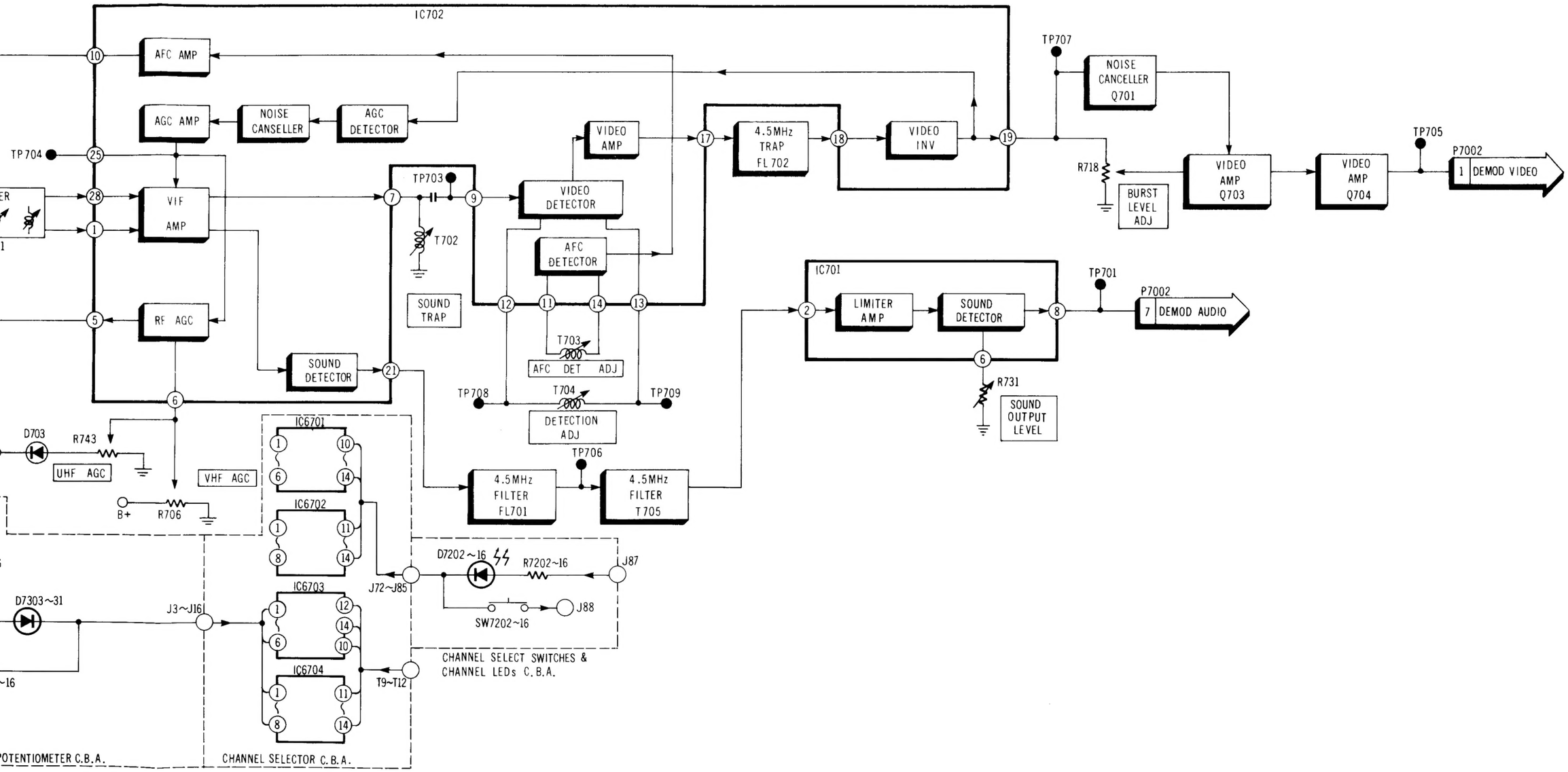
POWER SUPPLY BLOCK DIAGRAM



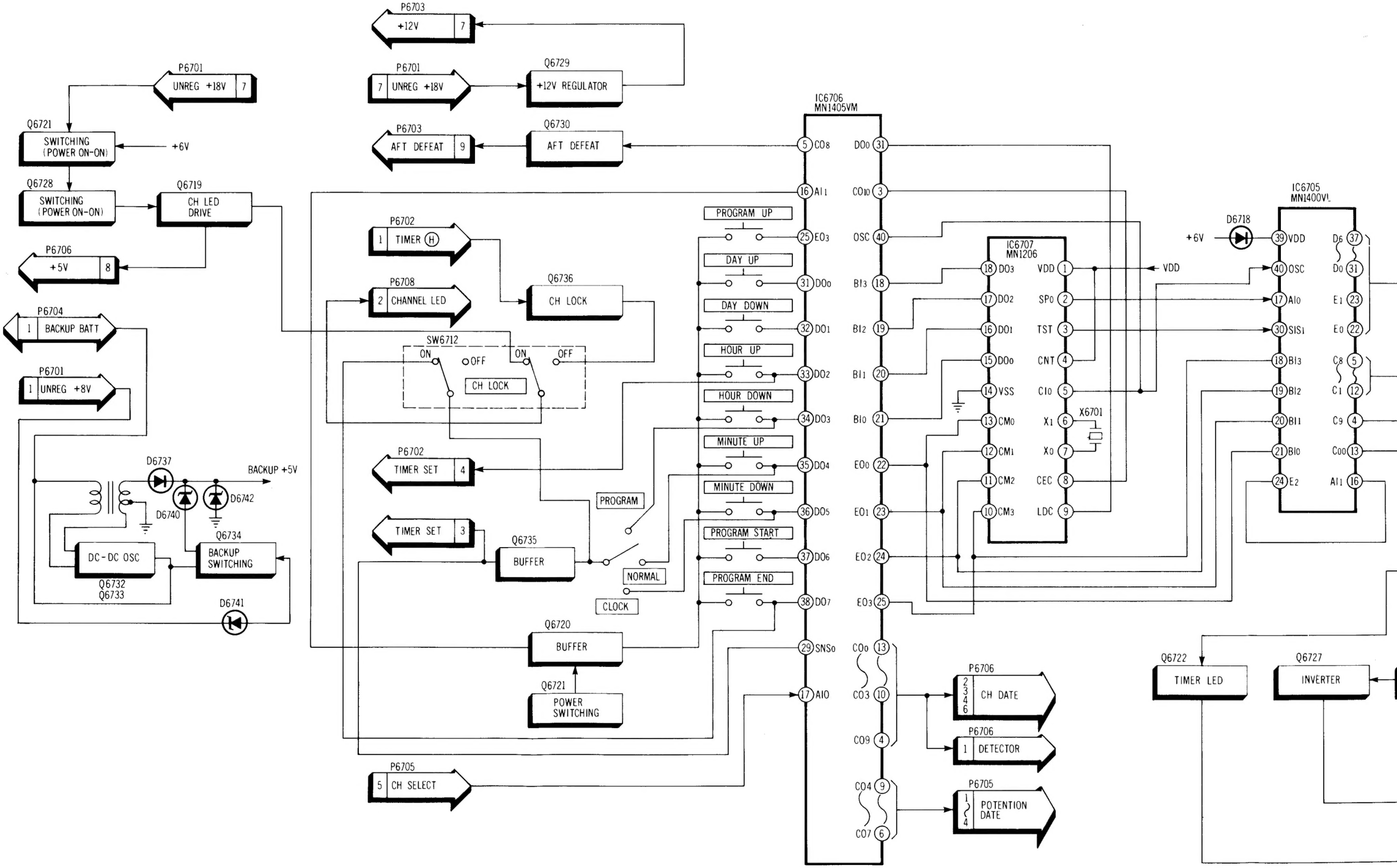
CH. SELECTOR & TV DEMODULATOR BLOCK DIAGRAM



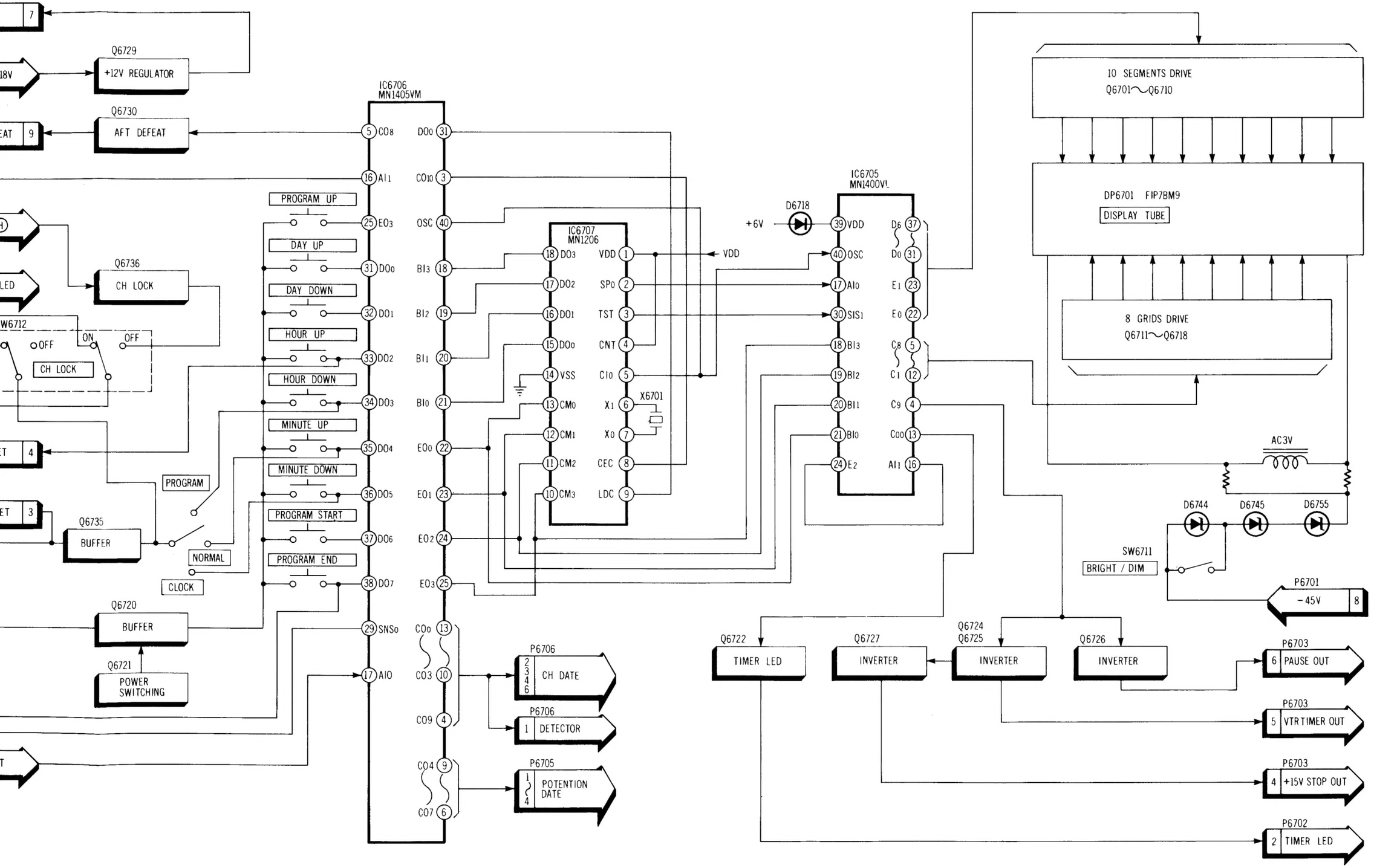
OCK DIAGRAM


IC702
AFC AMP
AGC AMP
NOISE CANSELLER
AGC DETECTOR
VIDEO AMP
4.5MHz TRAP FL702
VIDEO INV
TP707
NOISE CANCELLER Q701
TP705
P7002
1 DEMOD VIDEO
TP704
VIF AMP
TP703
VIDEO DETECTOR
R718
BURST LEVEL ADJ
VIDEO AMP Q703
VIDEO AMP Q704
T702
AFC DETECTOR
SOUND TRAP
IC701
LIMITER AMP
SOUND DETECTOR
TP701
P7002
7 DEMOD AUDIO
RF AGC
T703
AFC DET ADJ
SOUND DETECTOR
R731
SOUND OUTPUT LEVEL
TP708
T704
TP709
DETECTION ADJ
TP706
4.5MHz FILTER FL701
4.5MHz FILTER T705
D703
R743
UHF AGC
VHF AGC
B+
R706
IC6701
IC6702
IC6703
IC6704
D7202~16
R7202~16
J87
J72~J85
J88
SW7202~16
D7303~31
J3~J16
T9~T12
CHANNEL SELECT SWITCHES & CHANNEL LEDs C.B.A.
POTENTIOMETER C.B.A.
CHANNEL SELECTOR C.B.A.

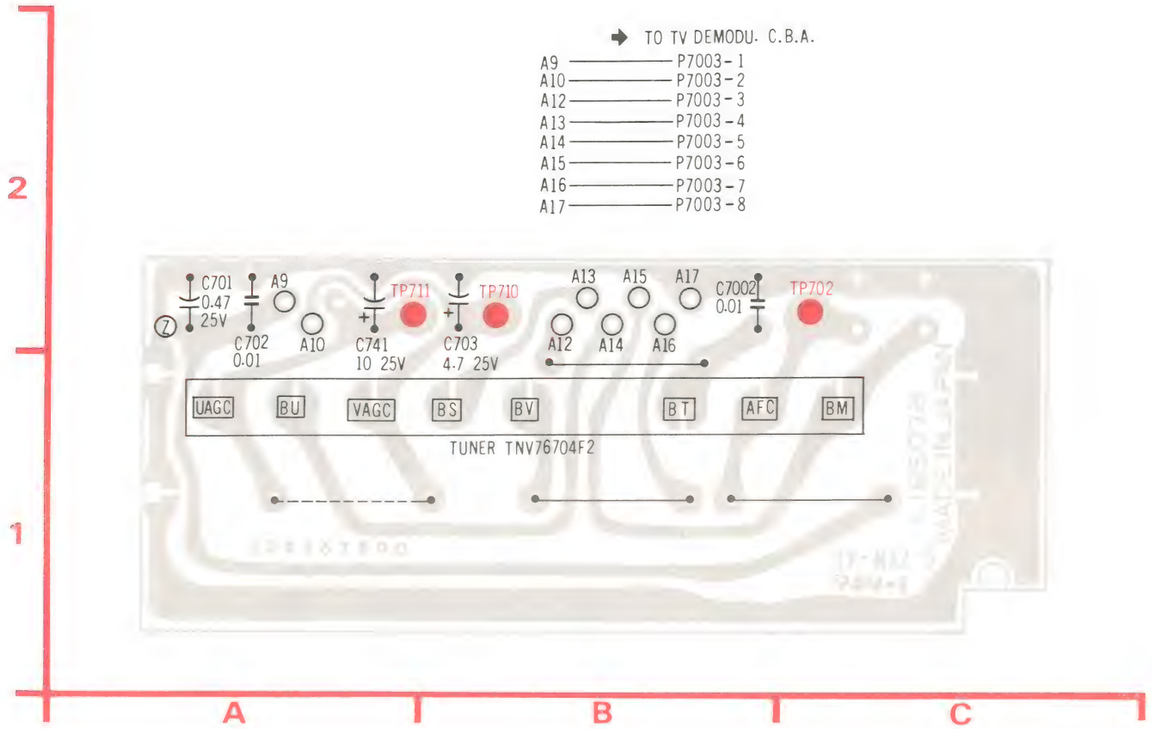
PROGRAMMABLE TIMER BLOCK DIAGRAM



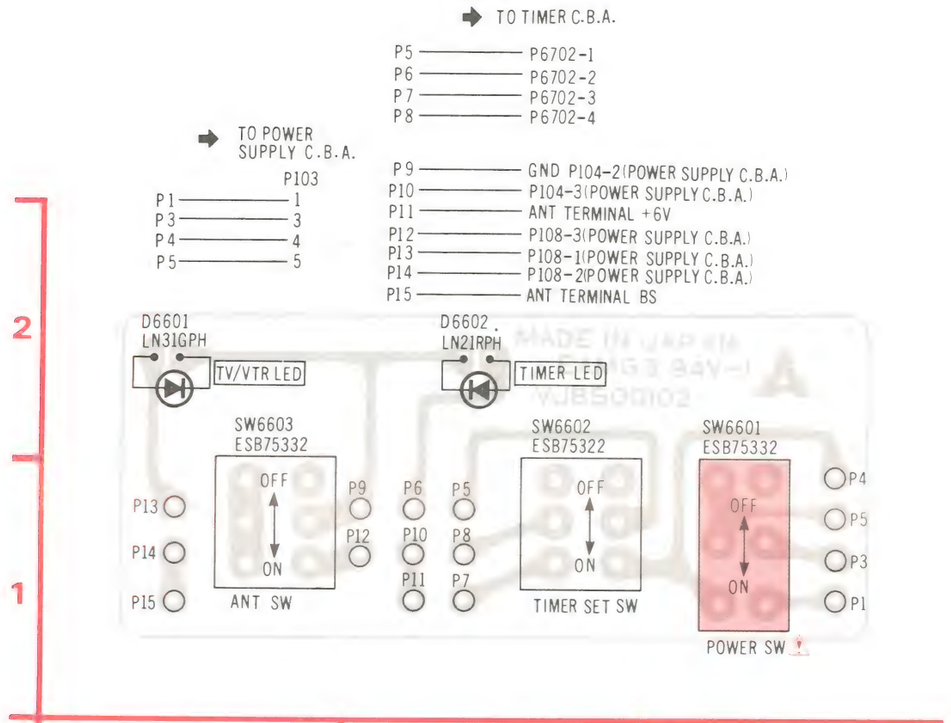
DIAGRAM


7
Q6729
+12V REGULATOR
Q6730
AFT DEFEAT
9
4
3
Q6736
CH LOCK
W6712
OFF
ON
OFF
CH LOCK
PROGRAM
Q6735
BUFFER
NORMAL
CLOCK
Q6720
BUFFER
Q6721
POWER SWITCHING
IC6706
MN1405VM
PROGRAM UP
DAY UP
DAY DOWN
HOUR UP
HOUR DOWN
MINUTE UP
MINUTE DOWN
PROGRAM START
PROGRAM END
IC6707
MN1206
X6701
IC6705
MN1400VL
D6718
+6V
VDD
P6706
CH DATE
P6706
DETECTOR
P6705
POTENTION DATE
10 SEGMENTS DRIVE
Q6701~Q6710
DP6701 FIP7BM9
DISPLAY TUBE
8 GRIDS DRIVE
Q6711~Q6718
AC3V
D6744
D6745
D6755
SW6711
BRIGHT / DIM
P6701
-45V
8
Q6722
TIMER LED
Q6727
INVERTER
Q6724
Q6725
INVERTER
Q6726
INVERTER
P6703
6 PAUSE OUT
P6703
5 VTR TIMER OUT
P6703
4 +15V STOP OUT
P6702
2 TIMER LED

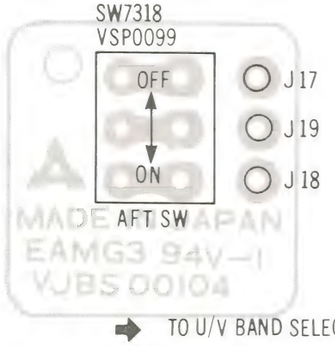
TUNER CONNECTION C.B.A. (VEPS0721A1)



POWER & INPUT SELECT SWITCHES C.B.A. (VEPS00102A1)



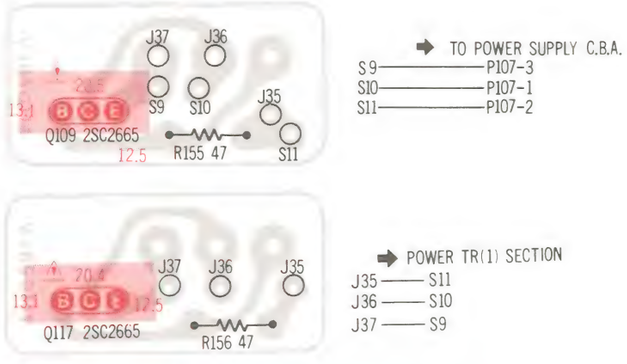
DOOR SWITCH C.B.A. (VEPS00104A1) (AFC SWITCH)



TO U/V BAND SELECT SW & LED C.B.A.

J17 — DOOR SWITCH OFF J17
J18 — DOOR SWITCH ON J18
J19 — DOOR SWITCH +12V J19

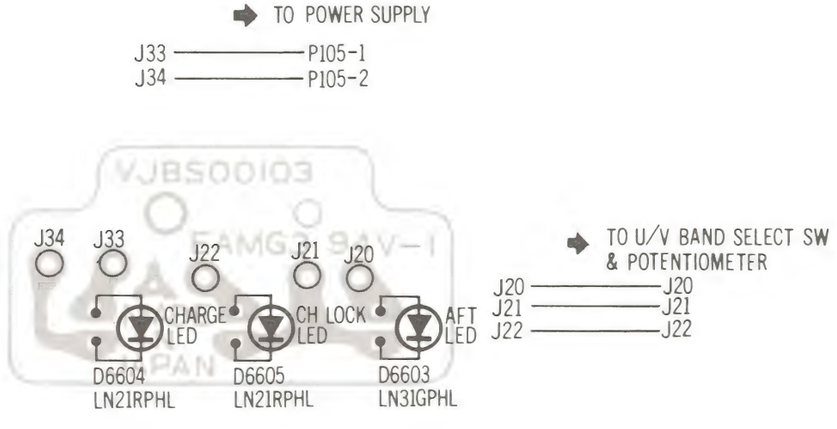
POWER TRS C.B.A. (VEPS0114A1)



IMPORTANT SAFETY NOTICE

Components identified by shade ⚠ have special characteristics important for safety.
When replacing any of these components, use only the original ones.

BATTERY CHARGE LAMPS C.B.A. (VEPS00103A1)



POWER SUPPLY SCHEMATIC DIAGRAM

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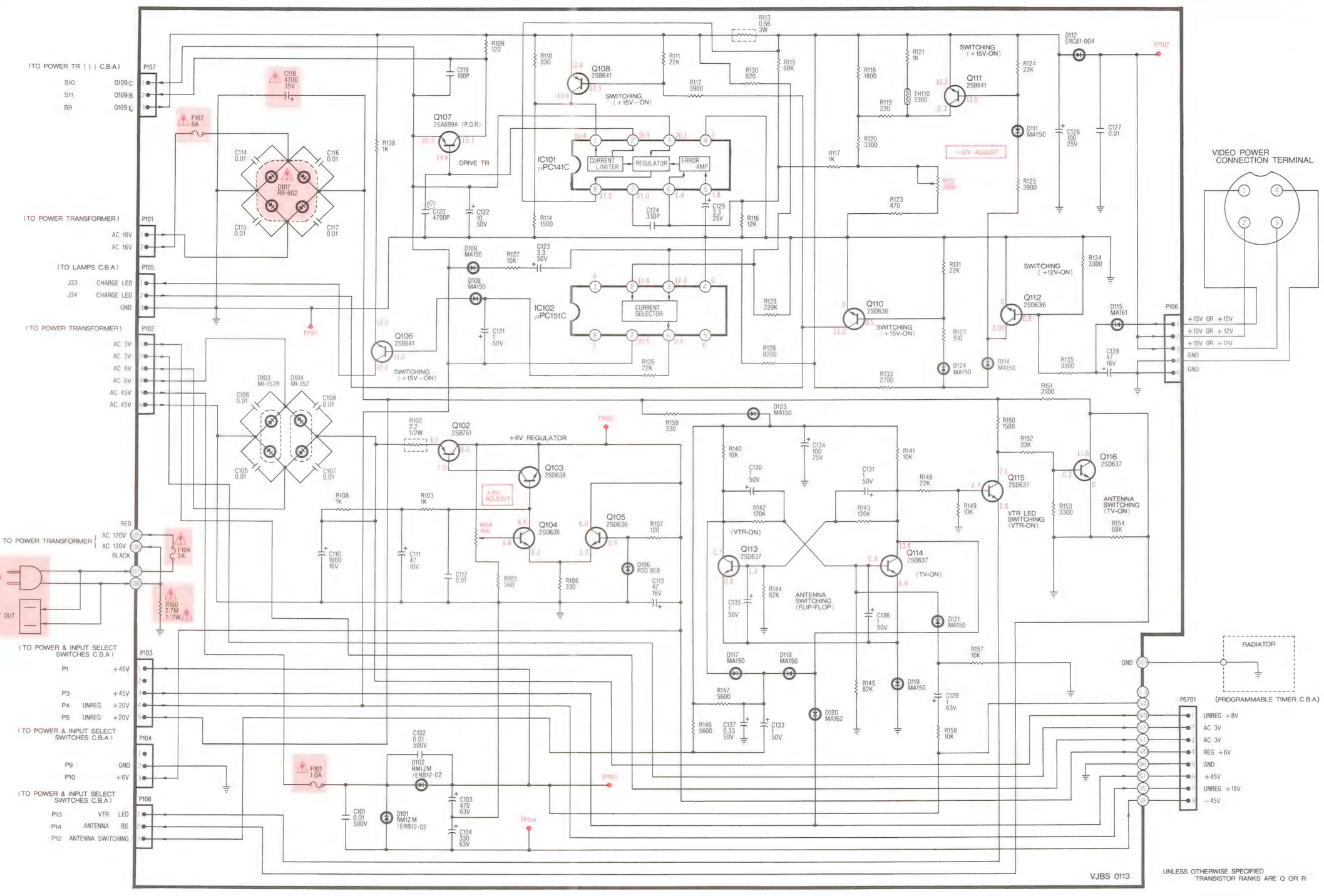
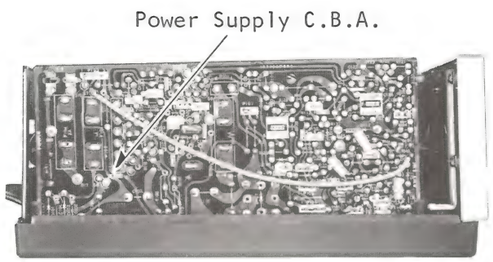
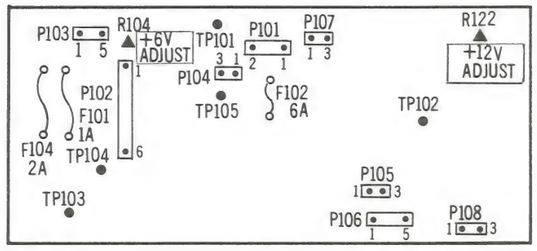


POWER SUPPLY C.B.A (VEPS0113A1)





Tr. NO.	E	B	C
Q102	8.2	7.5	6.0
Q103	6.0	6.5	7.5
Q104	3.2	3.8	6.5
Q105	3.2	3.9	6.0
Q106	12.0	11.4	12.0
Q107	20.0	19.9	13.1
Q108	12.4	12.3	10.4
Q110	0	0.5	12.2
Q111	12.2	11.5	2.2
Q112	0	0.8	0.03
Q113	0.6	1.3	0.7
Q114	0.6	0.3	13.4
Q115	2.0	2.7	2.1
Q116	0	0.2	11.9

	IC101	IC102
1	10.4	0
2	19.9	12.4
3	20.5	12.2
4	0	0
5	1.8	0
6	1.8	2.0
7	11.0	20.5
8	12.2	0

P101	
1	AC 16V
2	AC 16V

P104	
1	
2	GND
3	+6V

P102	
1	AC 3V
2	AC 3V
3	AC 8V
4	AC 8V
5	AC 45V
6	AC 45V

P103	
1	+45V
2	
3	+45V
4	UNREG +20V
5	UNREG +20V

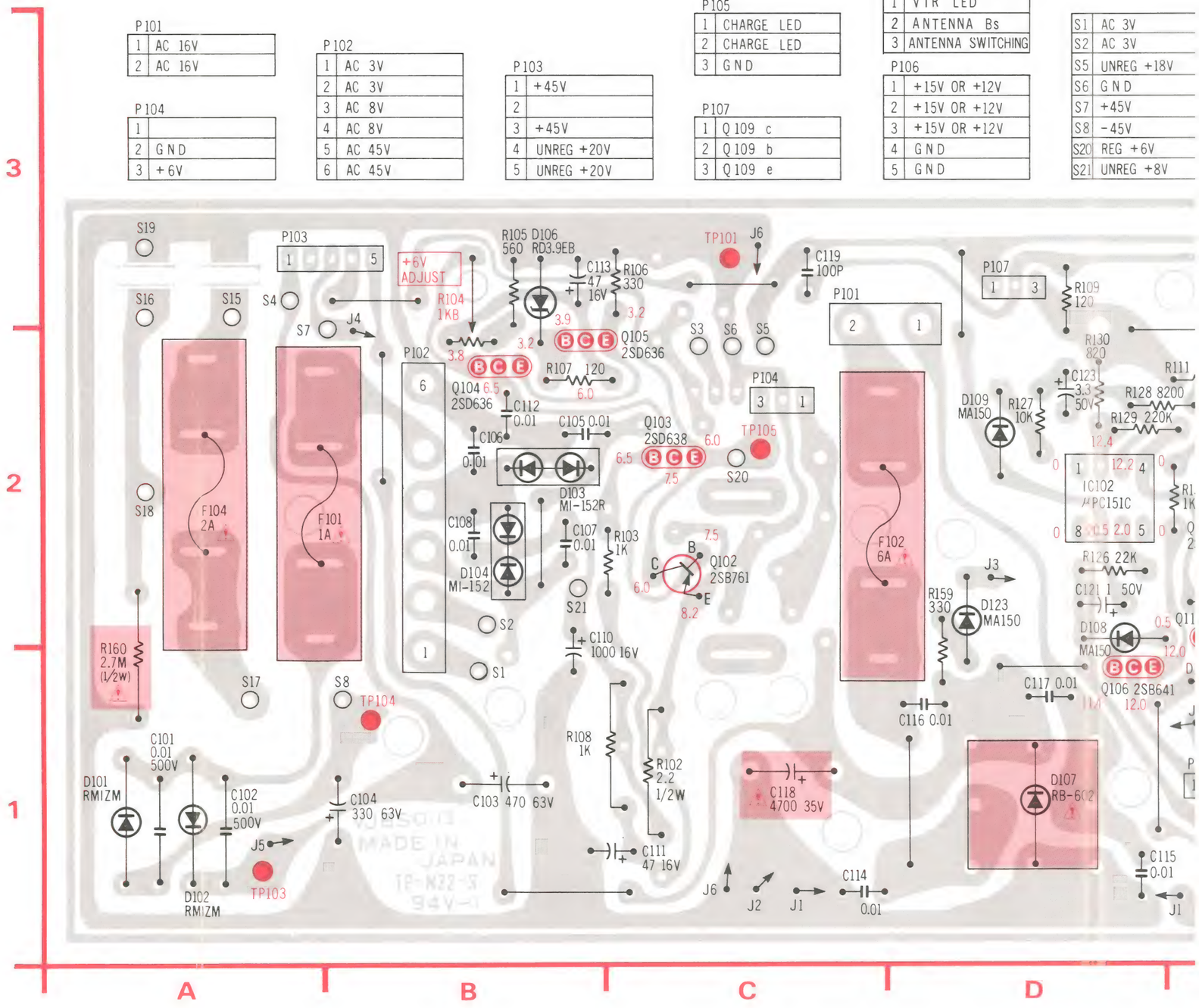
P105	
1	CHARGE LED
2	CHARGE LED
3	GND

P107	
1	Q109 c
2	Q109 b
3	Q109 e

P108	
1	VTR LED
2	ANTENNA Bs
3	ANTENNA SWITCHING

P106	
1	+15V OR +12V
2	+15V OR +12V
3	+15V OR +12V
4	GND
5	GND

S1	AC 3V
S2	AC 3V
S5	UNREG +18V
S6	GND
S7	+45V
S8	-45V
S20	REG +6V
S21	UNREG +8V



POWER SUPPLY C.B.A (VEPS0113A1)

Power Supply	
Q102	C-2
Q103	C-2
Q104	B-2
Q105	B-2
Q106	D-1
Q107	E-3
Q108	E-2
Q110	E-2
Q111	F-2
Q112	E-2
Q113	F-2
Q114	E-1
Q115	E-1
Q116	F-1

P101

1	AC 16V
2	AC 16V

P102

1	AC 3V
2	AC 3V
3	AC 8V
4	AC 8V
5	AC 45V
6	AC 45V

P103

1	+45V
2	
3	+45V
4	UNREG +20V
5	UNREG +20V

P104

1	
2	GND
3	+6V

P105

1	CHARGE LED
2	CHARGE LED
3	GND

P107

1	Q109 c
2	Q109 b
3	Q109 e

P108

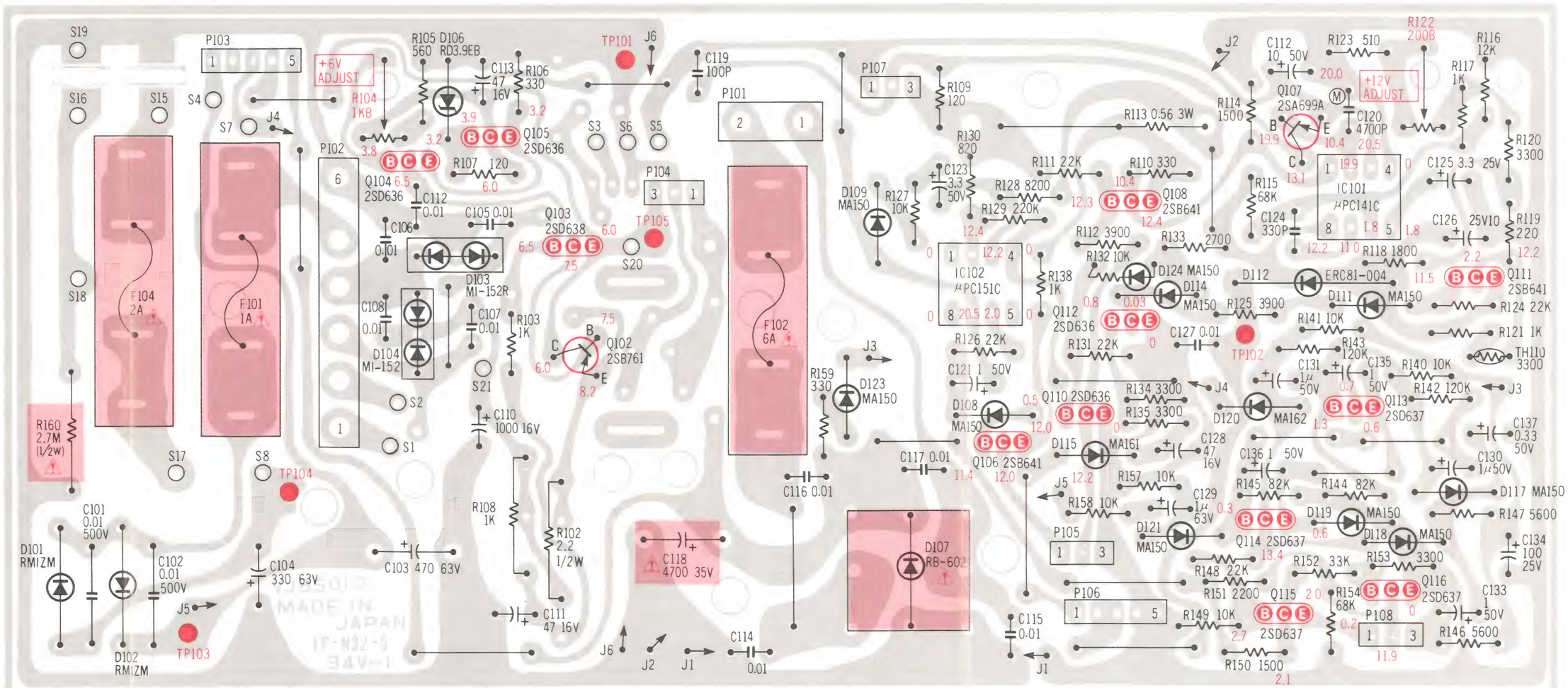
1	VTR LED
2	ANTENNA Bs
3	ANTENNA SWITCHING

P106

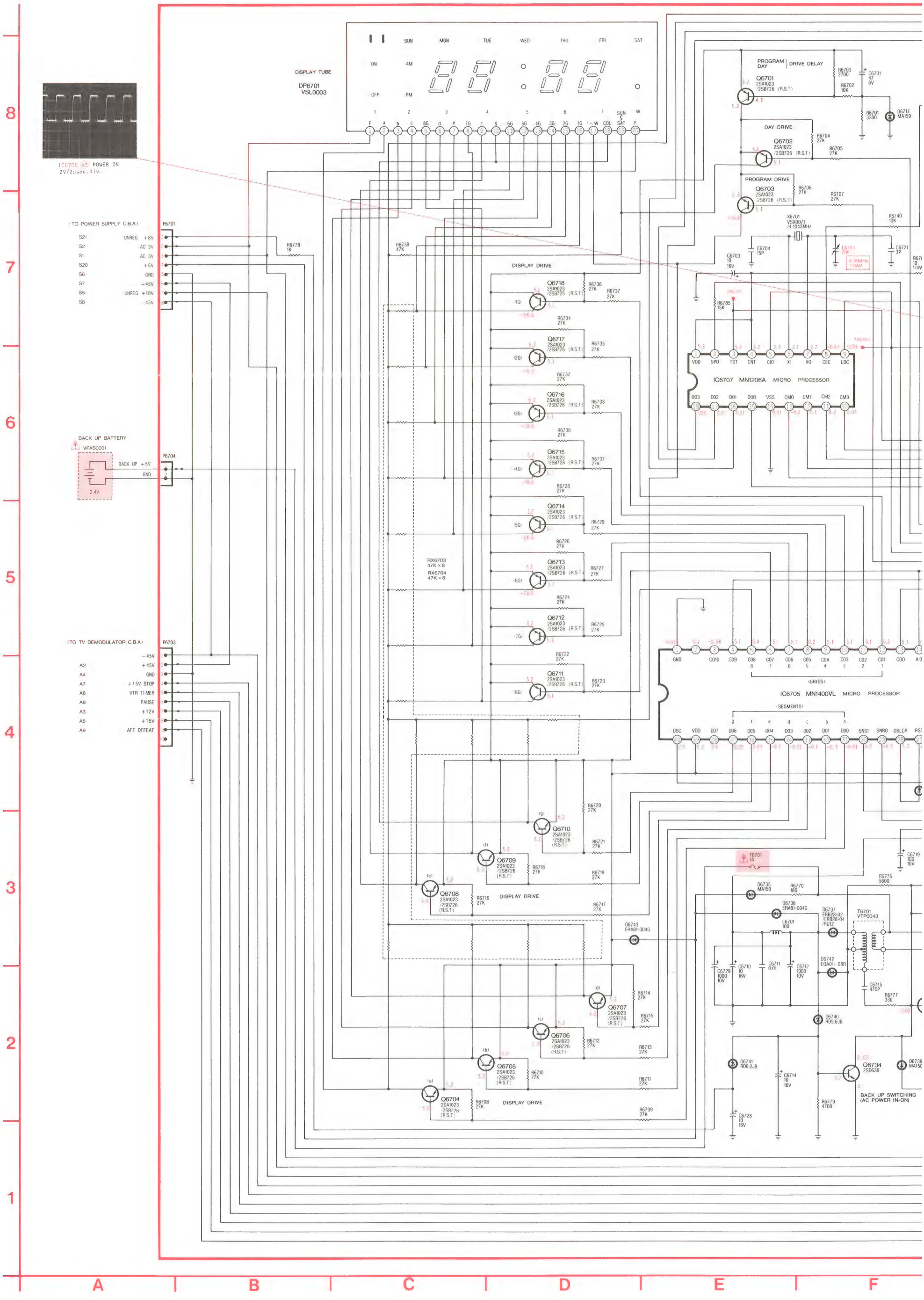
1	+15V OR +12V
2	+15V OR +12V
3	+15V OR +12V
4	GND
5	GND

S1	AC 3V
S2	AC 3V
S5	UNREG +18V
S6	GND
S7	+45V
S8	-45V
S20	REG +6V
S21	UNREG +8V

S15, S16 → POWER TRANSFORMER
S17, S18 → AC 120V IN
S19 → GND
S3,S4 → N.C



PROGRAMMABLE TIMER SCHEMATIC DIAGRAM



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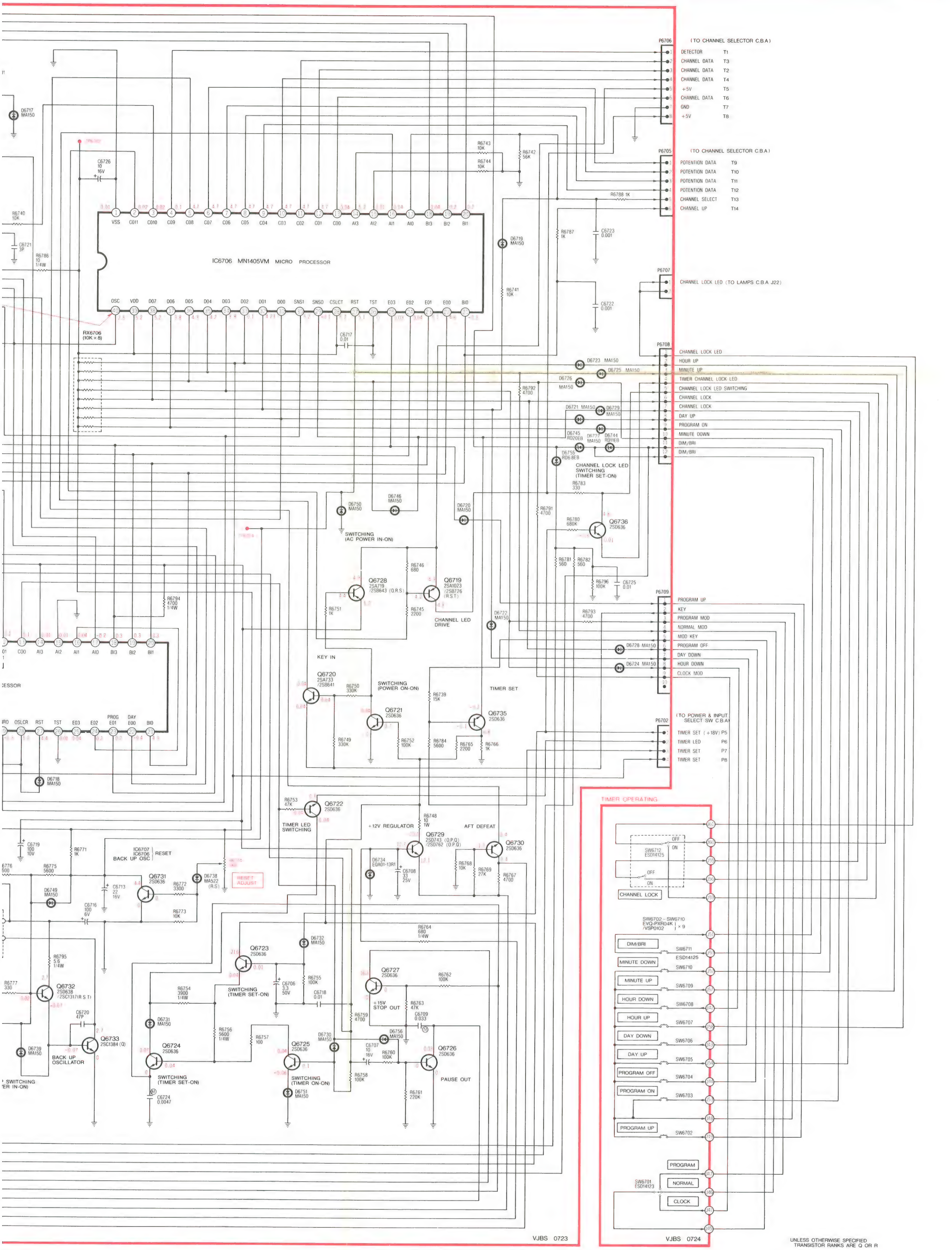


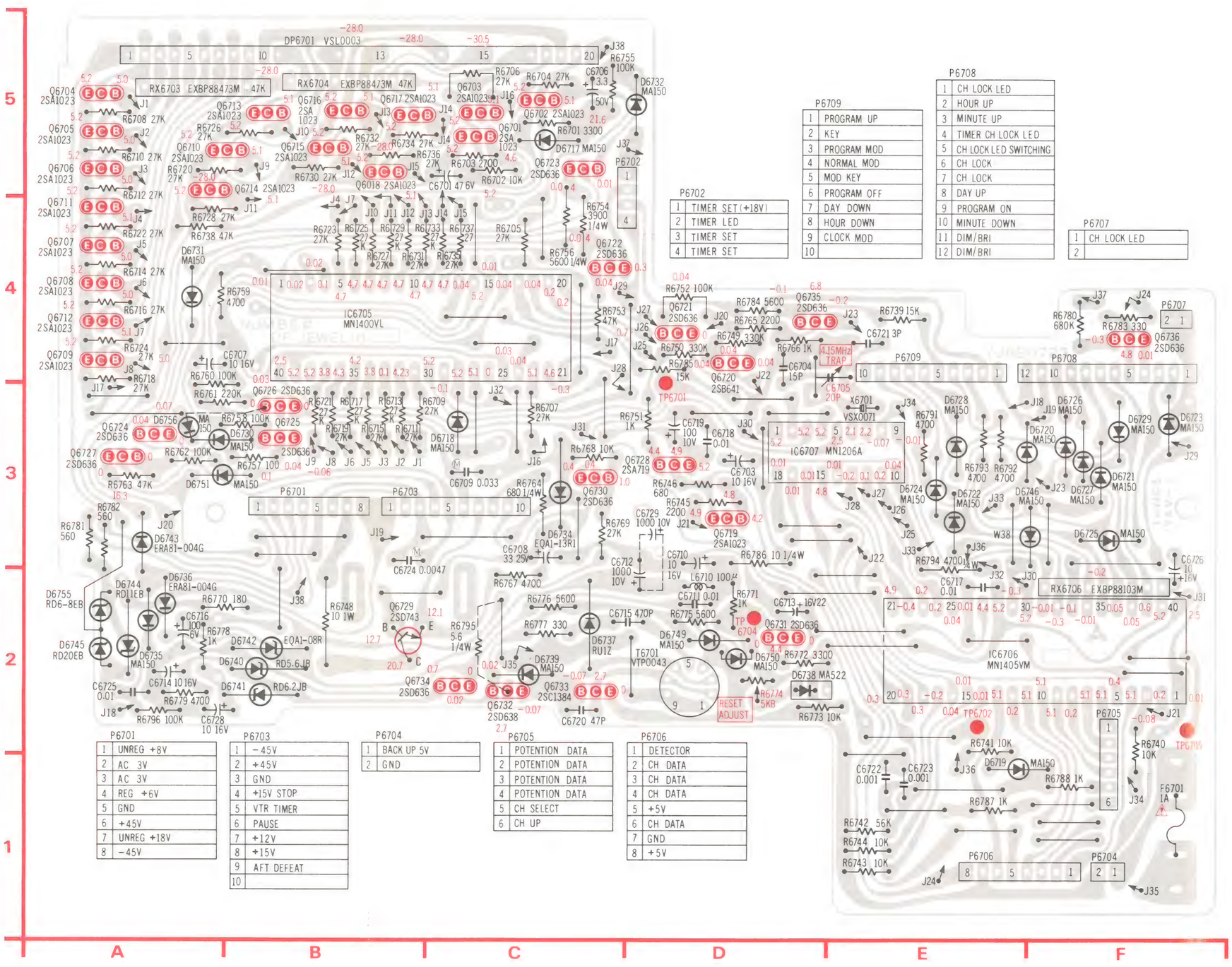
G H I J K L

PROGRAMMABLE TIMER C.B.A (VEPS0723A1)

Tr. NO.	E	B	C
Q6701	5.2	4.6	5.2
Q6702	5.2	5.1	
Q6703	5.2	5.1	−30.5
Q6704	5.2	5.0	
Q6705	5.2	5.0	
Q6706	5.2	5.0	
Q6707	5.2	5.0	
Q6708	5.2	5.0	
Q6709	5.2	5.0	
Q6710	5.2	5.1	
Q6711	5.2	5.1	
Q6712	5.2	5.1	
Q6713	5.2	5.1	−28.0
Q6714	5.2	5.1	−28.0
Q6715	5.2	5.1	−28.0
Q6716	5.2	5.1	−28.0
Q6717	5.2	5.1	−28.0
Q6718	5.2	5.1	−28.0
Q6719	4.9	4.2	4.8
Q6720	0.04	0.04	0.04
Q6721	0	0.7	0.04
Q6722	0.3	0.04	0.04
Q6723	0.04	0.01	21.6
Q6724	0	0.04	0.07
Q6725	−0.06	0.1	0.04
Q6726	0	0	0.03
Q6727	0	0	16.3
Q6728	5.2	4.4	4.9
Q6729	12.1	12.7	20.7
Q6730	0.4	1.0	0.4
Q6731	0	0	4.4
Q6732	−0.07	0.02	2.7
Q6733	0	−0.07	2.7
Q6734	0	0.7	0.02
Q6735	−0.2	−0.1	6.8
Q6736	0.01	−0.3	4.8

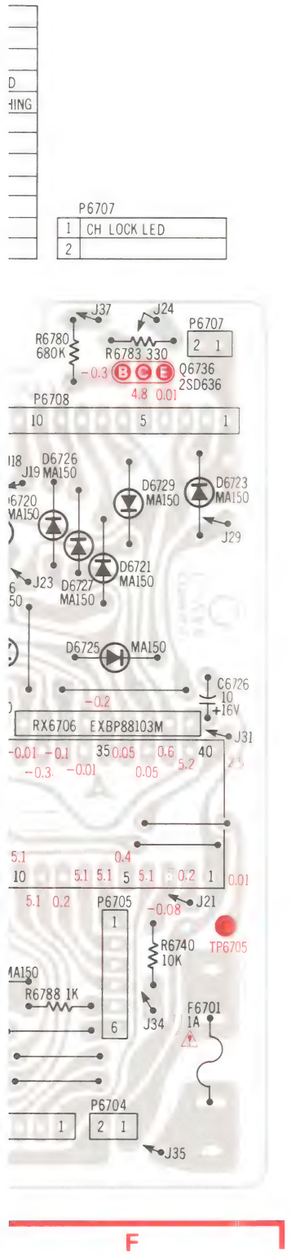
	IC6705	IC6706
1	0.01	0.01
2	0.02	0.2
3	0.02	−0.08
4	0.1	5.1
5	4.7	0.4
6	4.7	5.1
7	4.7	5.1
8	4.7	0.2
9	4.7	5.1
10	4.7	5.1
11	4.7	5.1
12	4.7	0.2
13	0.04	5.1
14	5.2	0.01
15	0.01	0.01
16	0.04	0.04
17		−0.2
18	0.04	0.3
19	0.2	0.3
20	0.2	0.3
21	−0.3	4.9
22	4.6	−0.4
23	5.1	0.2
24	0.04	0.2
25	0.03	0.04
26	0	0.01
27	5.1	4.4
28	5.2	5.2
29	−0.1	−0.3
30	5.2	5.2
31		−0.01
32	4.23	−0.3
33	0.1	−0.1
34	3.8	−0.01
35	4.2	−0.2
36	4.3	0.05
37	3.8	0.05
38	5.2	0.6
39	5.2	5.2
40	2.5	2.5

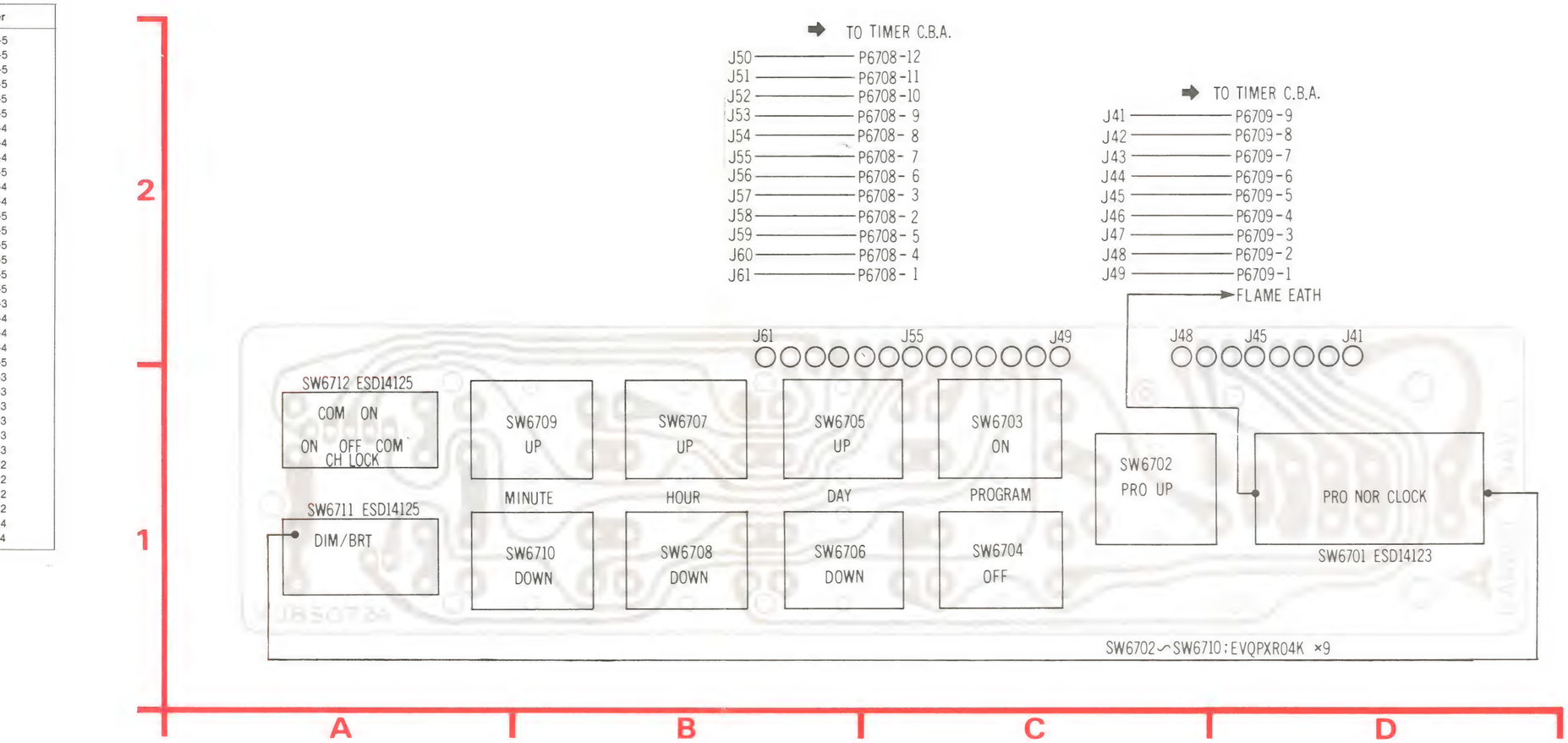
	IC6707
1	5.2
2	
3	5.2
4	5.2
5	2.5
6	2.1
7	2.2
8	−0.07
9	−0.01
10	0.04
11	0.2
12	0.1
13	−0.2
14	0.01
15	4.8
16	0.01
17	0.01
18	0.01

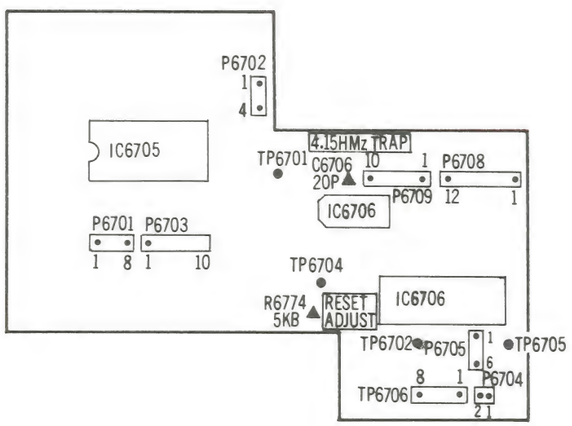


TIMER OPERATION C.B.A (VEPS0724A1)

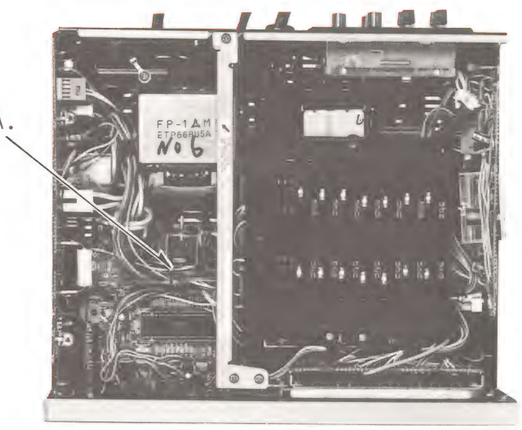
Programmable Timer	
Q6701	C-5
Q6702	C-5
Q6703	C-5
Q6704	A-5
Q6705	A-5
Q6706	A-5
Q6707	A-4
Q6708	A-4
Q6709	A-4
Q6710	A-5
Q6711	A-4
Q6712	A-4
Q6713	B-5
Q6714	A-5
Q6715	B-5
Q6716	B-5
Q6717	B-5
Q6718	B-5
Q6719	D-3
Q6720	D-4
Q6721	D-4
Q6722	C-4
Q6723	C-5
Q6724	A-3
Q6725	B-3
Q6726	B-3
Q6727	A-3
Q6728	D-3
Q6730	C-3
Q6731	D-2
Q6732	C-2
Q6733	C-2
Q6734	C-2
Q6735	D-4
Q6736	F-4



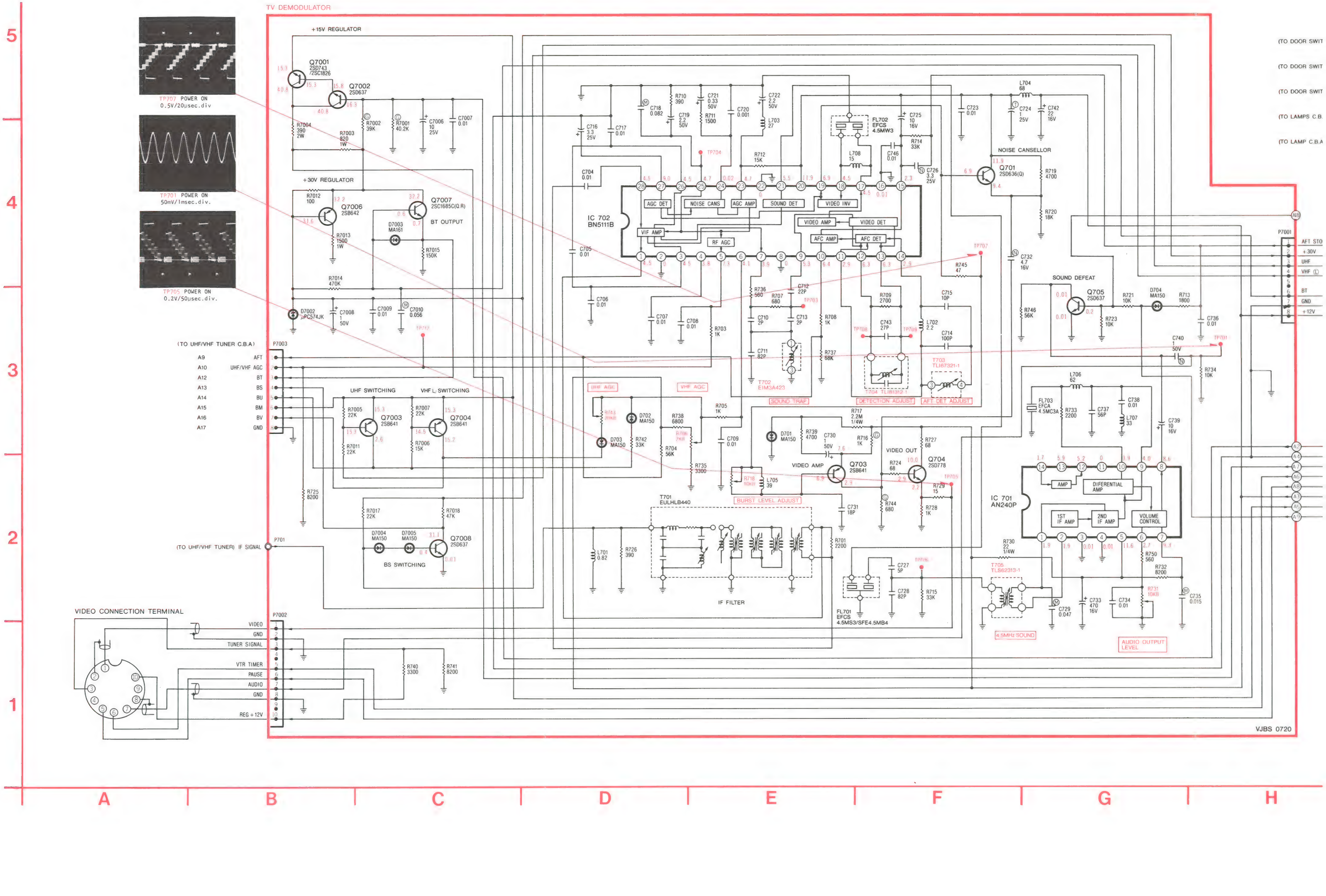


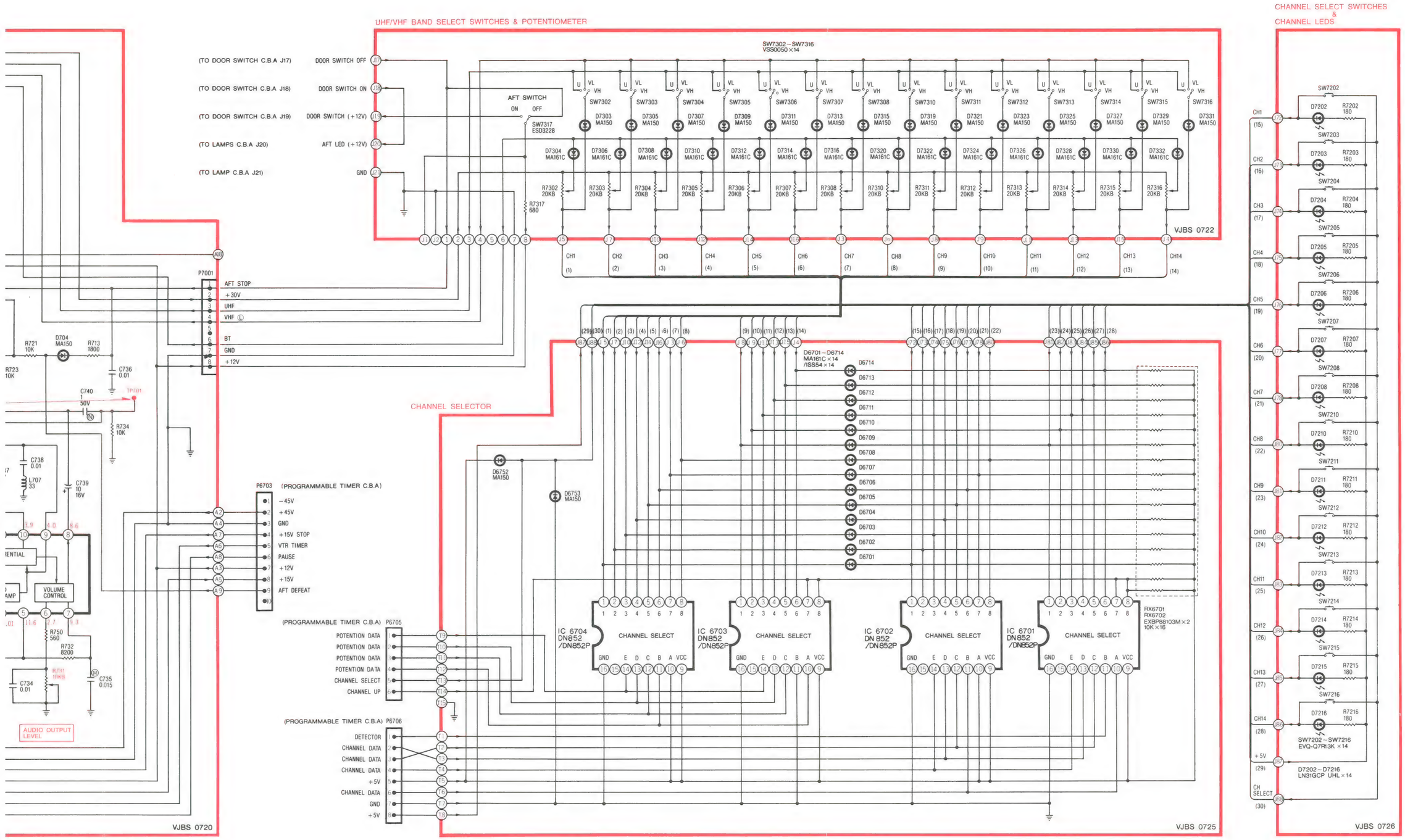


Programmable Timer C.B.A.



CH. SELECTOR & TV DEMODULATOR SCHEMATIC DIAGRAM




UHF/VHF BAND SELECT SWITCHES & POTENTIOMETER
CHANNEL SELECT SWITCHES & CHANNEL LEDS
CHANNEL SELECTOR
(TO DOOR SWITCH C.B.A J17)
(TO DOOR SWITCH C.B.A J18)
(TO DOOR SWITCH C.B.A J19)
(TO LAMPS C.B.A J20)
(TO LAMP C.B.A J21)
DOOR SWITCH OFF
DOOR SWITCH ON
DOOR SWITCH (+12V)
AFT LED (+12V)
GND
AFT SWITCH
ON OFF
SW7317 ESD3228
SW7302~SW7316 VSS0050×14
R7317 680
VJBS 0722
P7001
AFT STOP
+30V
UHF
VHF Ⓛ
BT
GND
+12V
P6703 (PROGRAMMABLE TIMER C.B.A)
−45V
+45V
GND
+15V STOP
VTR TIMER
PAUSE
+12V
+15V
AFT DEFEAT
(PROGRAMMABLE TIMER C.B.A) P6705
POTENTION DATA
POTENTION DATA
POTENTION DATA
POTENTION DATA
CHANNEL SELECT
CHANNEL UP
(PROGRAMMABLE TIMER C.B.A) P6706
DETECTOR
CHANNEL DATA
CHANNEL DATA
CHANNEL DATA
+5V
CHANNEL DATA
GND
+5V
D6701~D6714 MA161C×14 /ISS54×14
D6752 MA150
D6753 MA150
IC 6704 DN852 /DN852P
IC 6703 DN852 /DN852P
IC 6702 DN852 /DN852P
IC 6701 DN852 /DN852P
CHANNEL SELECT
RX6701 RX6702 EXBP88103M×2 10K×16
SW7202~SW7216 EVQ-Q7R13K×14
D7202~D7216 LN31GCP UHL×14
VJBS 0720
VJBS 0725
VJBS 0726

TV DEMODULATOR C.B.A (VEPS0720A1)

P7003	
1	AFT
2	VHF/UHF AGC
3	BT
4	BS
5	BU
6	BM
7	BV
8	GND

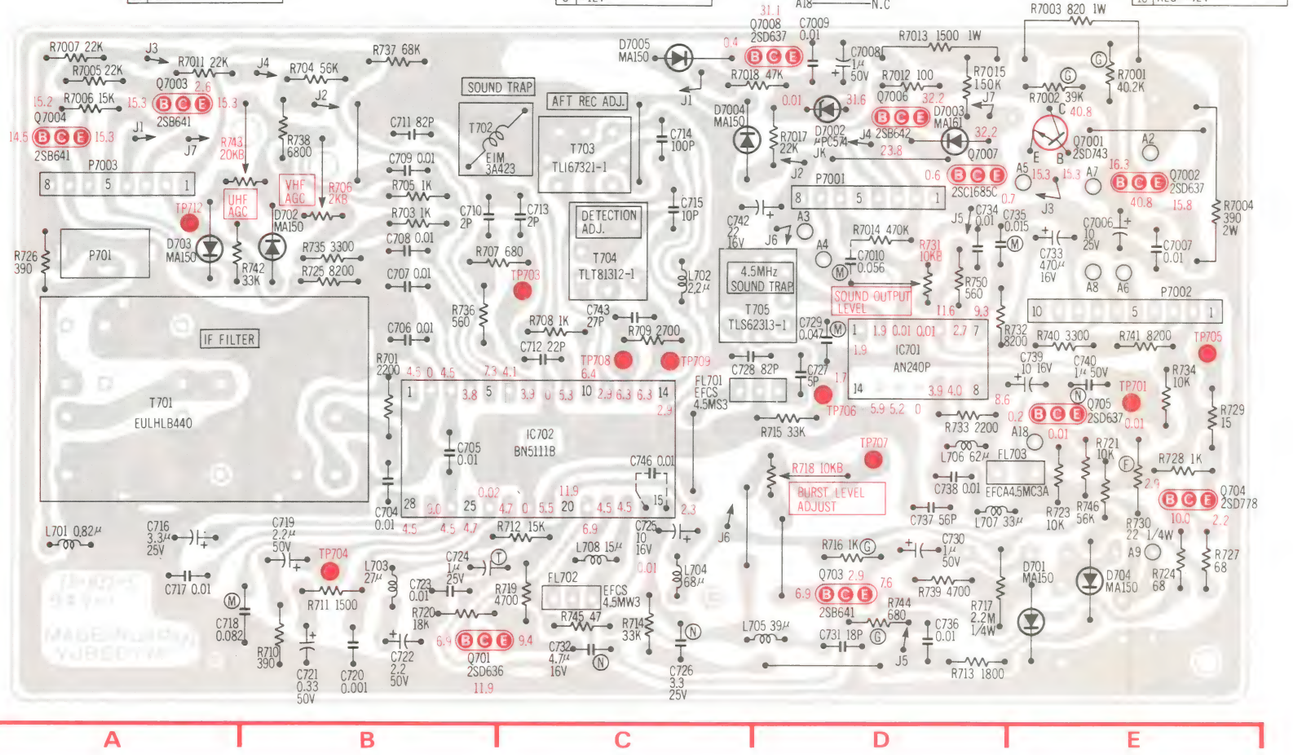
P7001	
1	AFT STOP
2	+30V
3	UHF
4	VHF (L)
5	
6	BT
7	GND
8	+12V

TO PROGRAMMABLE TIMER

A 2	P6703-2
A 3	P6703-7
A 4	P6703-3
A 5	P6703-8
A 6	P6703-5
A 7	P6703-4
A 8	P6703-6
A 9	P6703-9
A18	N.C

P701 IF SIGNAL

P7002	
1	VIDEO
2	GND
3	TUNER SIGNAL
4	
5	VTR TIMER
6	PAUSE
7	AUDIO
8	GND
9	
10	REG +12V

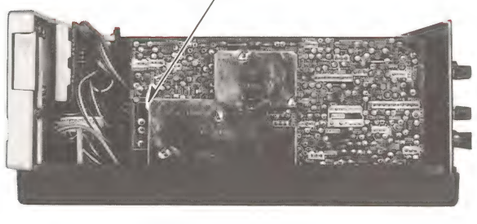


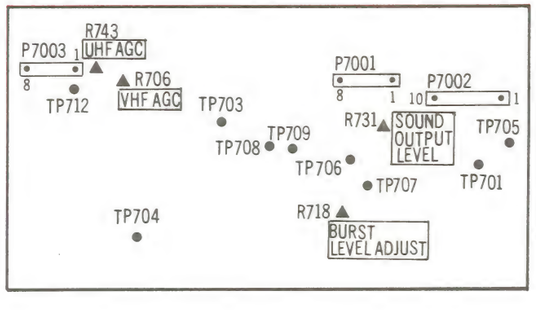
Tr. NO.	E	B	C
Q701	9.4	6.9	11.9
Q703	7.6	6.9	2.9
Q704	2.2	2.9	10.0
Q705	0.01	0.2	0.01
Q7001	15.3	15.3	40.8
Q7002	15.8	16.3	40.8
Q7003	15.3	15.3	2.6
Q7004	15.3	14.5	15.2
Q7006	32.2	31.6	23.8
Q7007	0.7	0.6	32.2
Q7008	0.01	0.4	31.1

	IC701
1	1.9
2	1.9
3	0.01
4	0.01
5	11.6
6	2.7
7	9.3
8	8.6
9	4.0
10	3.9
11	0
12	5.2
13	5.9
14	1.7

	IC702
1	4.5
2	0
3	4.5
4	3.8
5	7.3
6	4.1
7	3.9
8	0
9	5.3
10	6.4
11	2.9
12	6.3
13	6.3
14	2.9
15	2.3
16	0.01
17	4.5
18	4.5
19	6.9
20	11.9
21	5.5
22	0
23	4.7
24	0.02
25	4.7
26	4.5
27	9.0
28	4.5

TV Demodulator C.B.A.



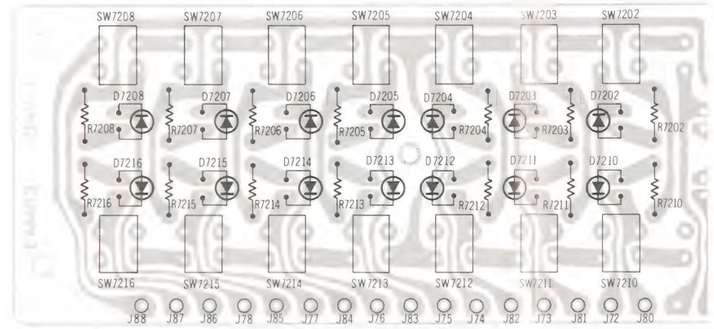


TV Demodu	
Q701	B-1
Q703	D-1
Q704	E-1
Q705	E-2
Q7002	E-3
Q7003	A-3
Q7004	A-3
Q7006	D-3
Q7007	D-3
Q7008	D-3

CH. SELECT SWITCHES & CH. SELECT LEDS C.B.A (VEP

TO CH. SELECTOR

J72	J72
J73	J73
J74	J74
J75	J75
J76	J76
J77	J77
J78	J78
J80	J80
J81	J81
J82	J82
J83	J83
J84	J84
J85	J85
J86	J86
J87	J87
J88	J88



UNLESS OTHERWISE SPECIFIED
ALL DIODES ARE LN3IGCP—UHI
ALL RESISTORS ARE 180Ω
ALL SWITCHES ARE EVQ—Q7R13K

CH. SELECTOR C.B.A (VEPS0725A1)

TO U/V BAND SELECT POTENTIOMETER

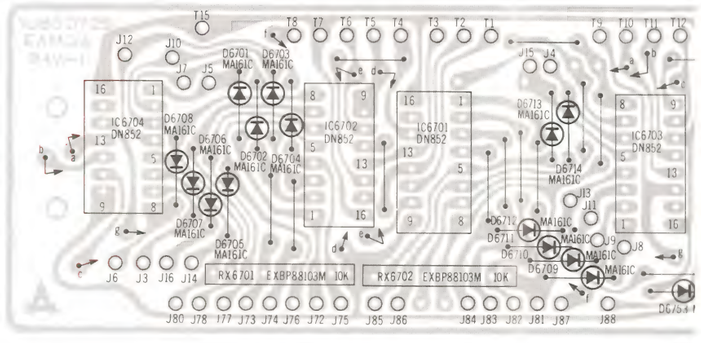
	J3
	J4
	J5
	J6
	J7
	J8
	J9
	J10
	J11
	J12
	J13
	J14
	J15
	J16

TO TIMER C.B.A.

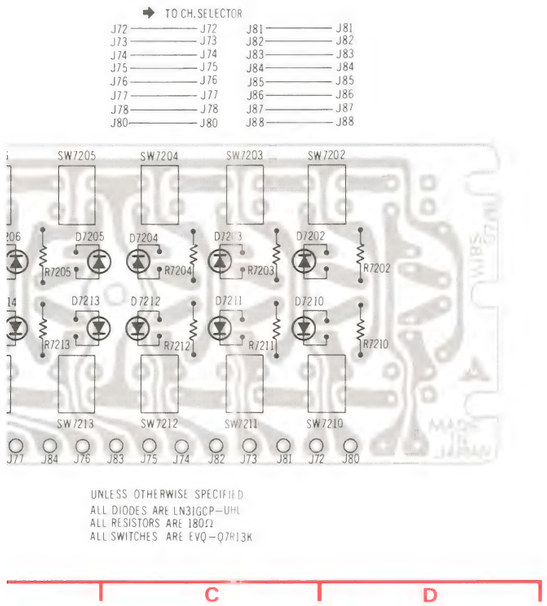
T9	P6705-1
T10	P6705-2
T11	P6705-3
T12	P6705-4
T13	P6705-5
T14	P6705-6

TO TIMER C.B.A.

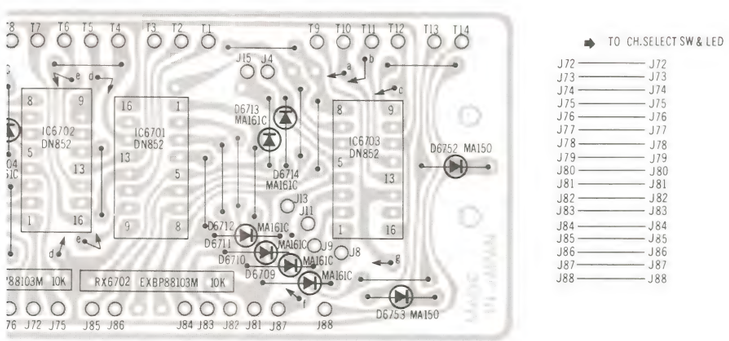
T1	P6706-1
T2	P6706-2
T3	P6706-3
T4	P6706-4
T5	P6706-5
T6	P6706-6
T7	P6706-7
T8	P6706-8



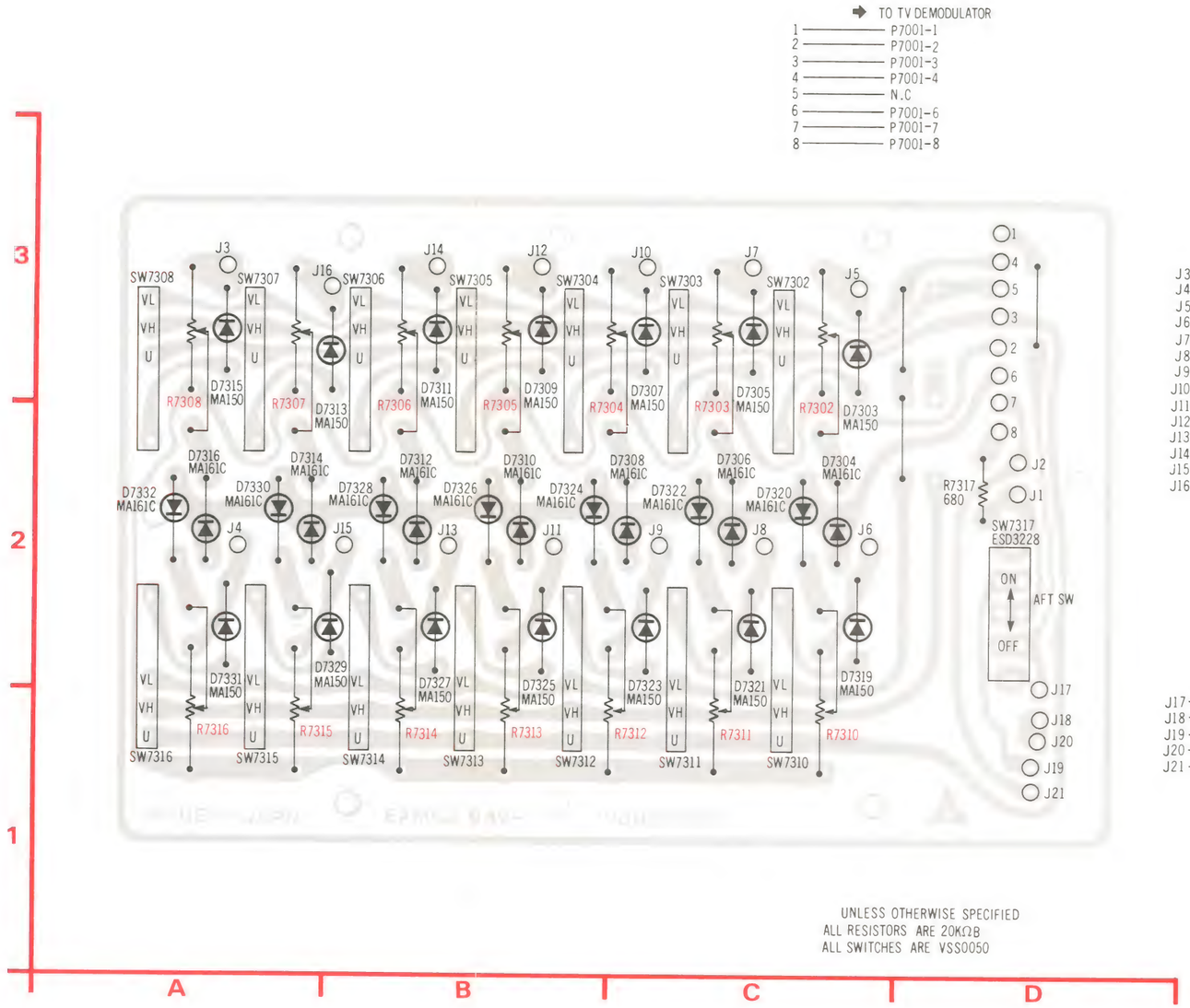
& CH. SELECT LEDS C.B.A (VEPS0726A1)

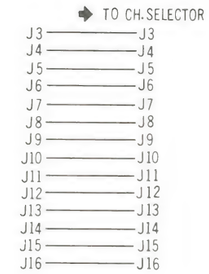


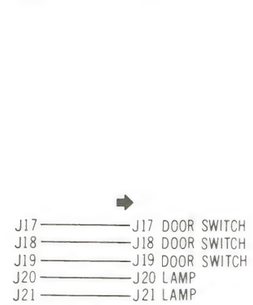
PS0725A1)



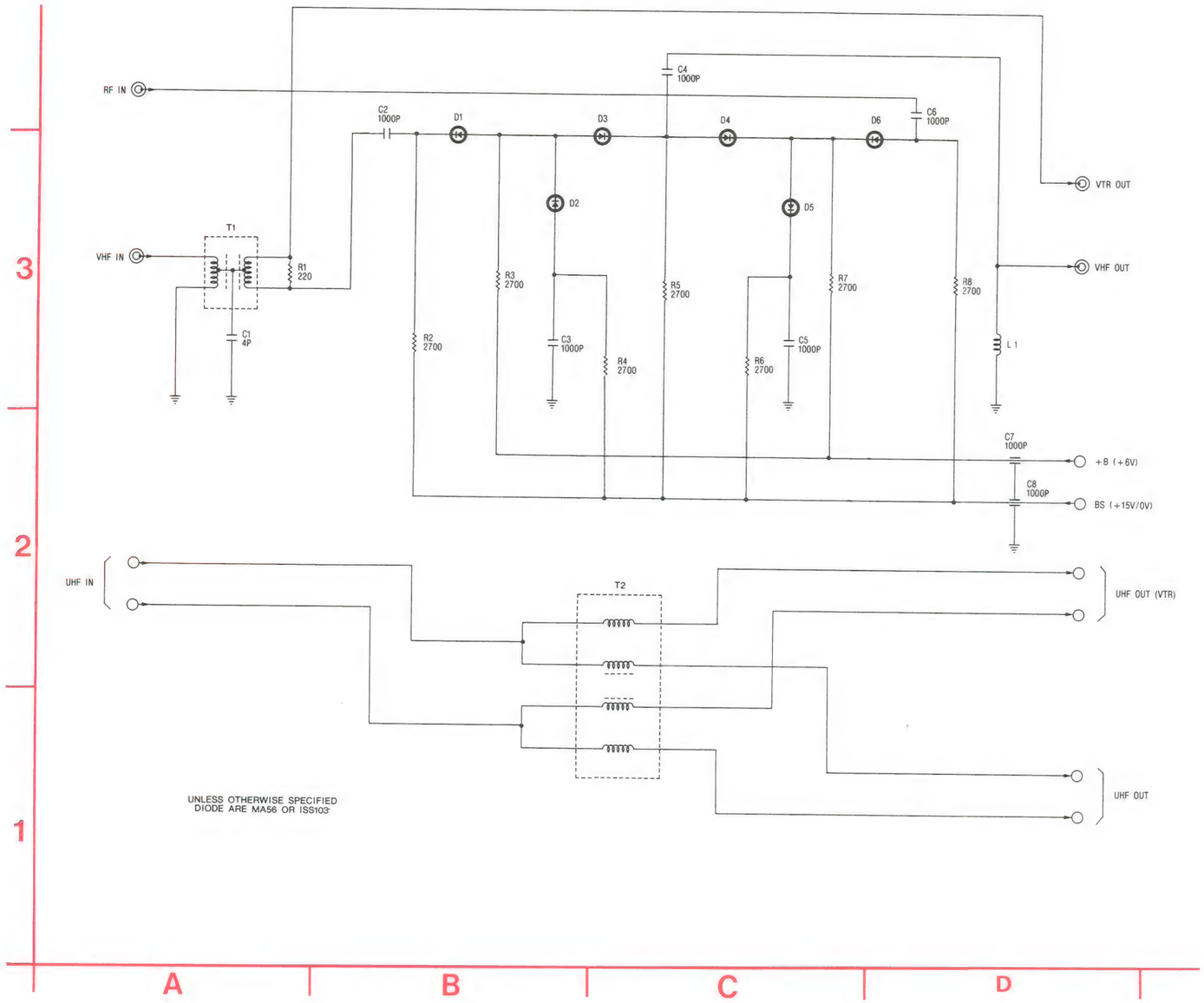
UHF/VHF BAND SELECT SWITCHES & POTENTIOMETER C.B.A (VEPS0722A1)



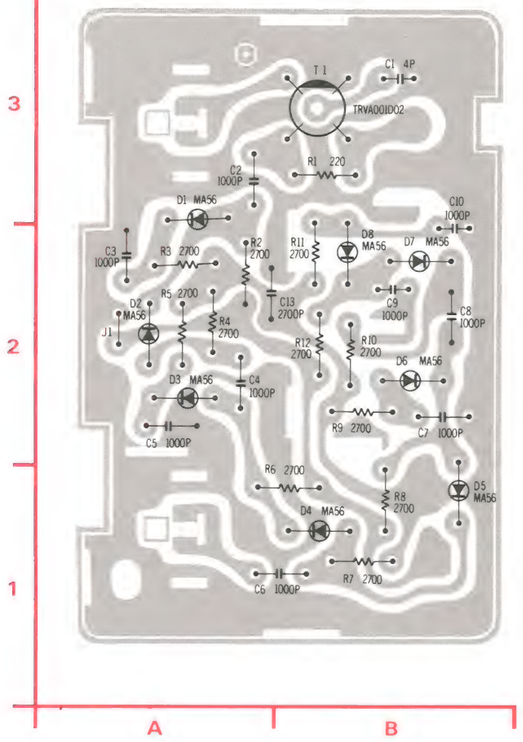




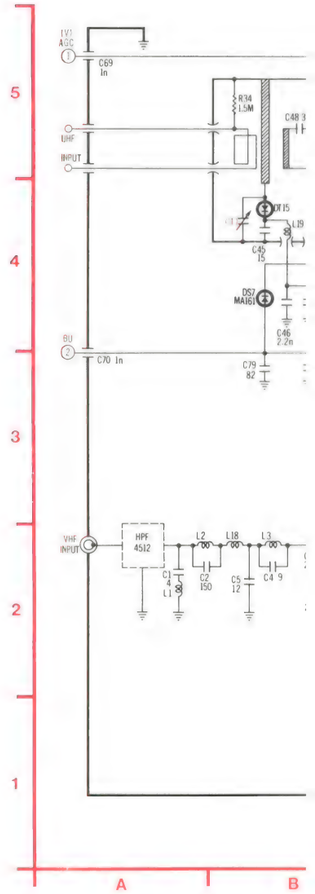
ANTENNA TERMINAL BOARD SCHEMATIC DIAGRAM



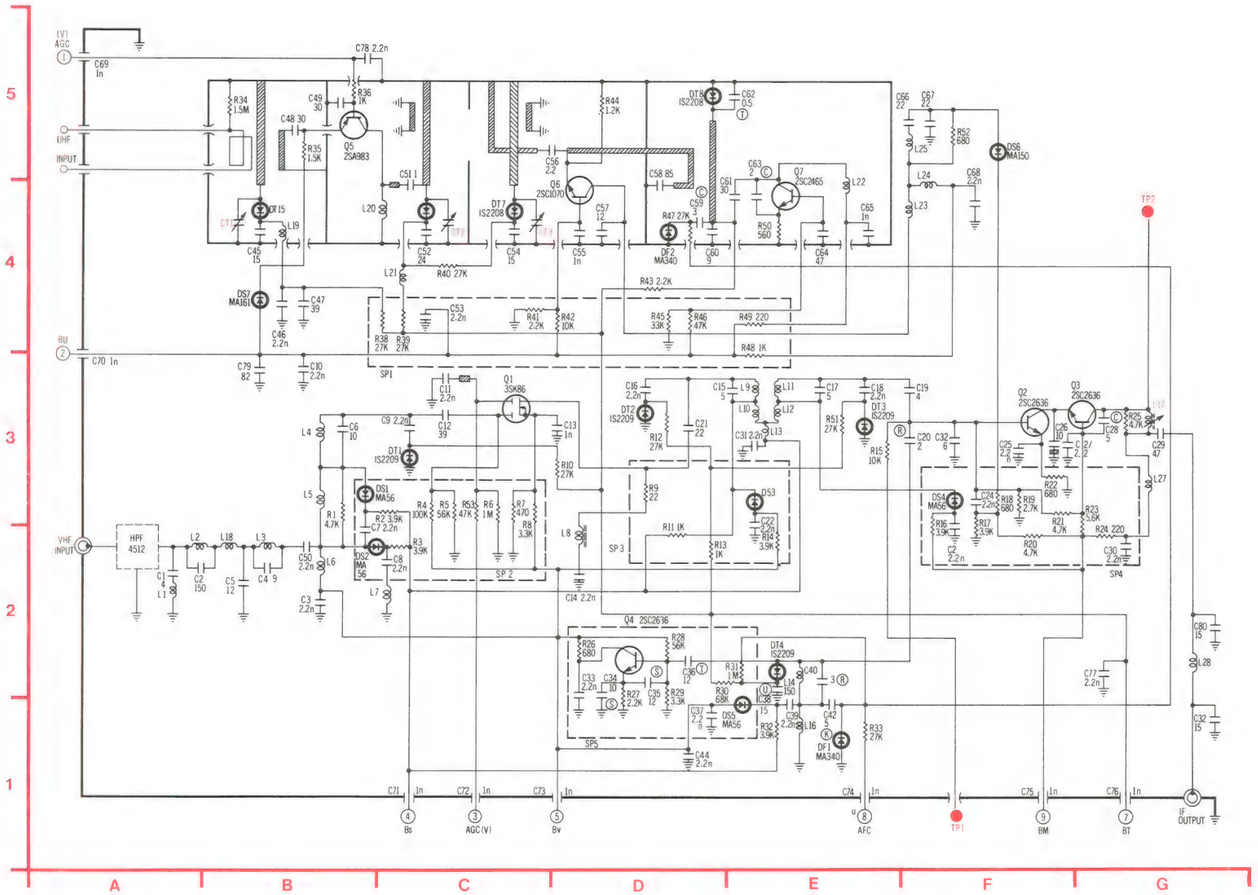
ANTENNA TERMINAL BOARD UNIT (ENPD607)



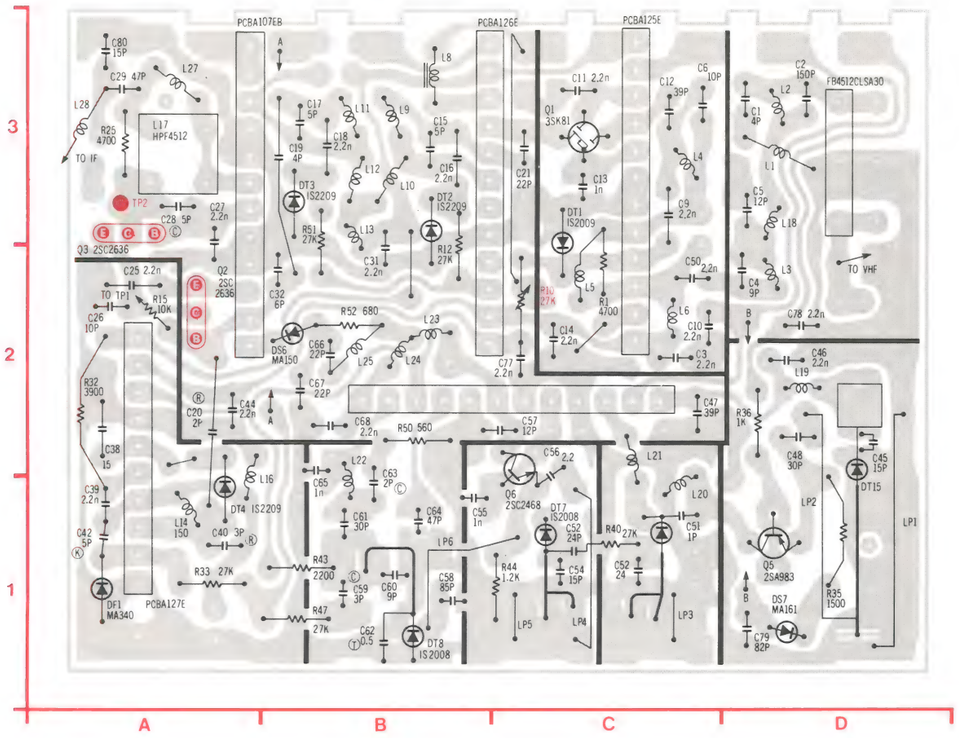
UHF/VHF T



UHF/VHF TUNER SCHEMATIC DIAGRAM



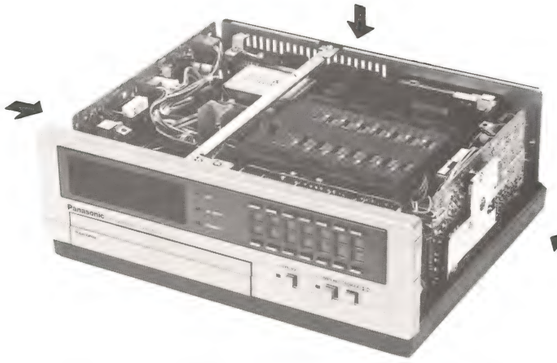
UHF/VHF TUNER UNIT (TNV76704F2)



CIRCUIT BOARD LAYOUT

TOP VIEW

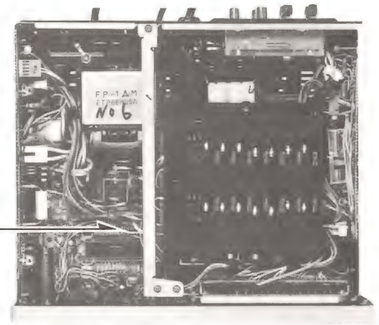
LEFT SIDE VIEW



RIGHT SIDE VIEW

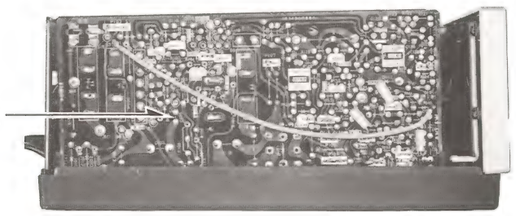
TOP VIEW

Programmable Timer C.B.A.



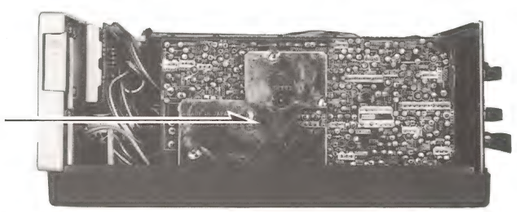
LEFT SIDE VIEW

Power Supply C.B.A.

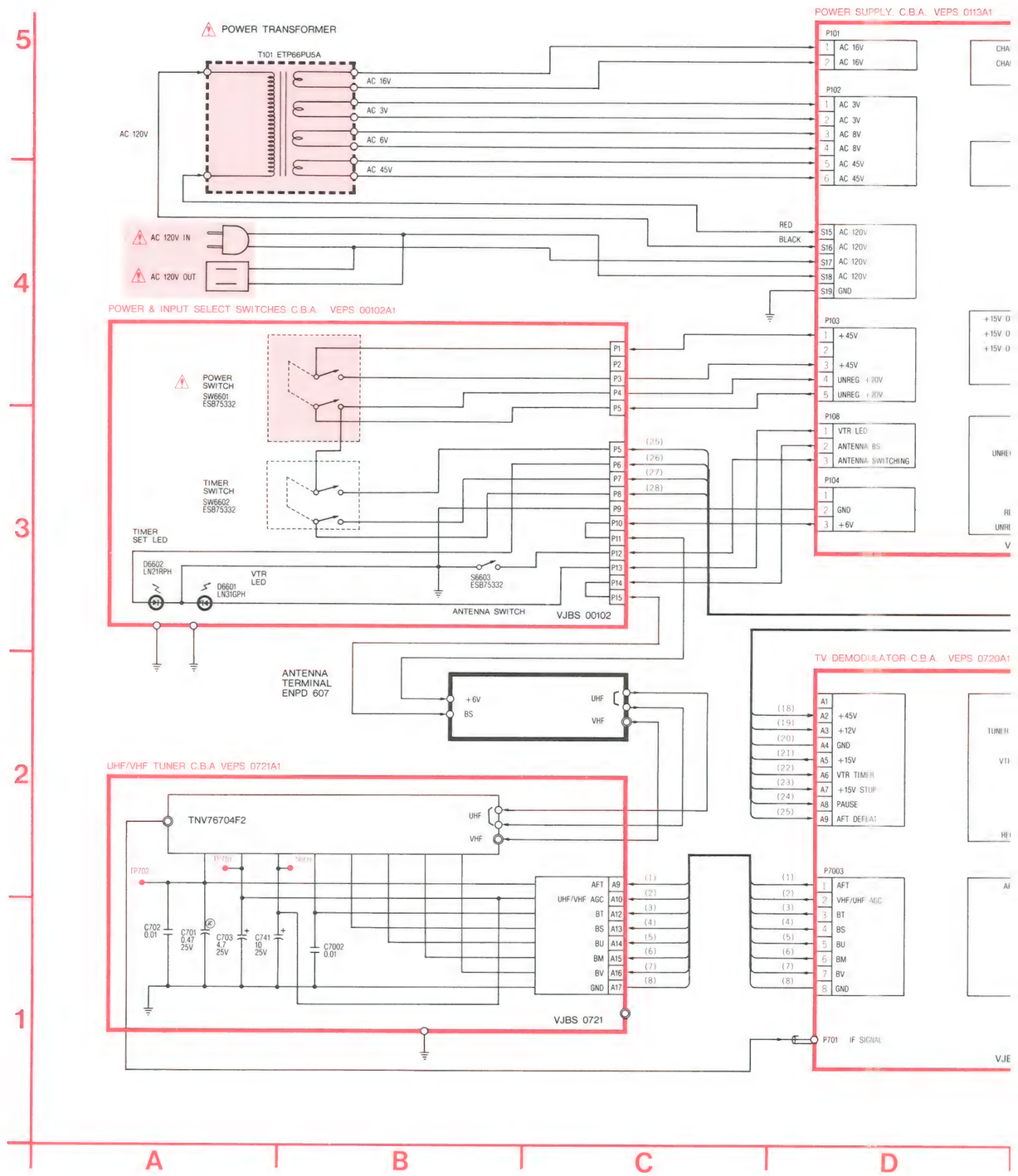


RIGHT SIDE VIEW

TV Demodulator C.B.A.

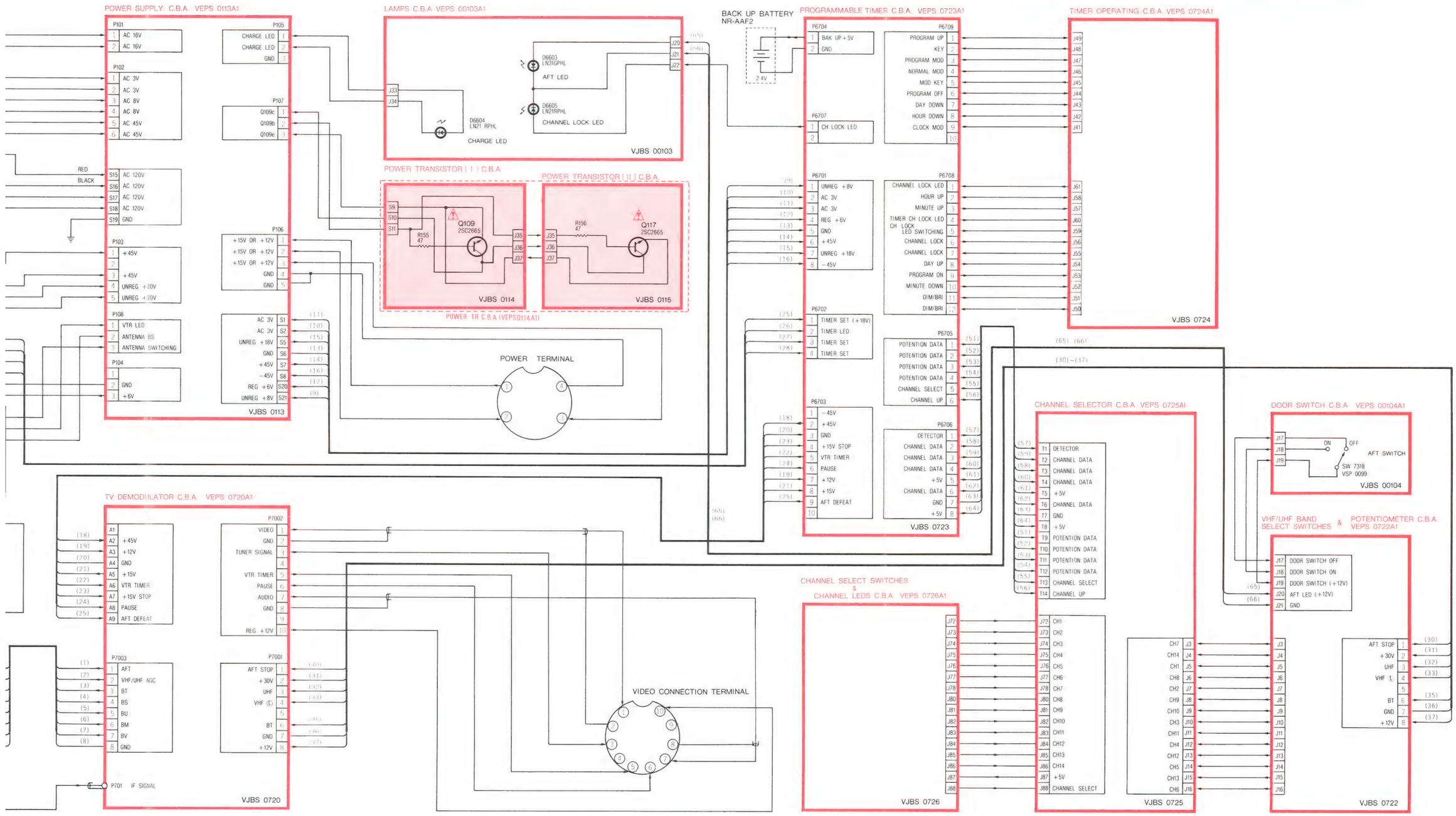


INTERCONNECTION SCHEMATIC DIAGRAM



IMPORTANT SAFETY NOTICE
Components identified by shade ⚠ have special characteristics important for safety.
When replacing any of these components, use only the original ones.

GRAM

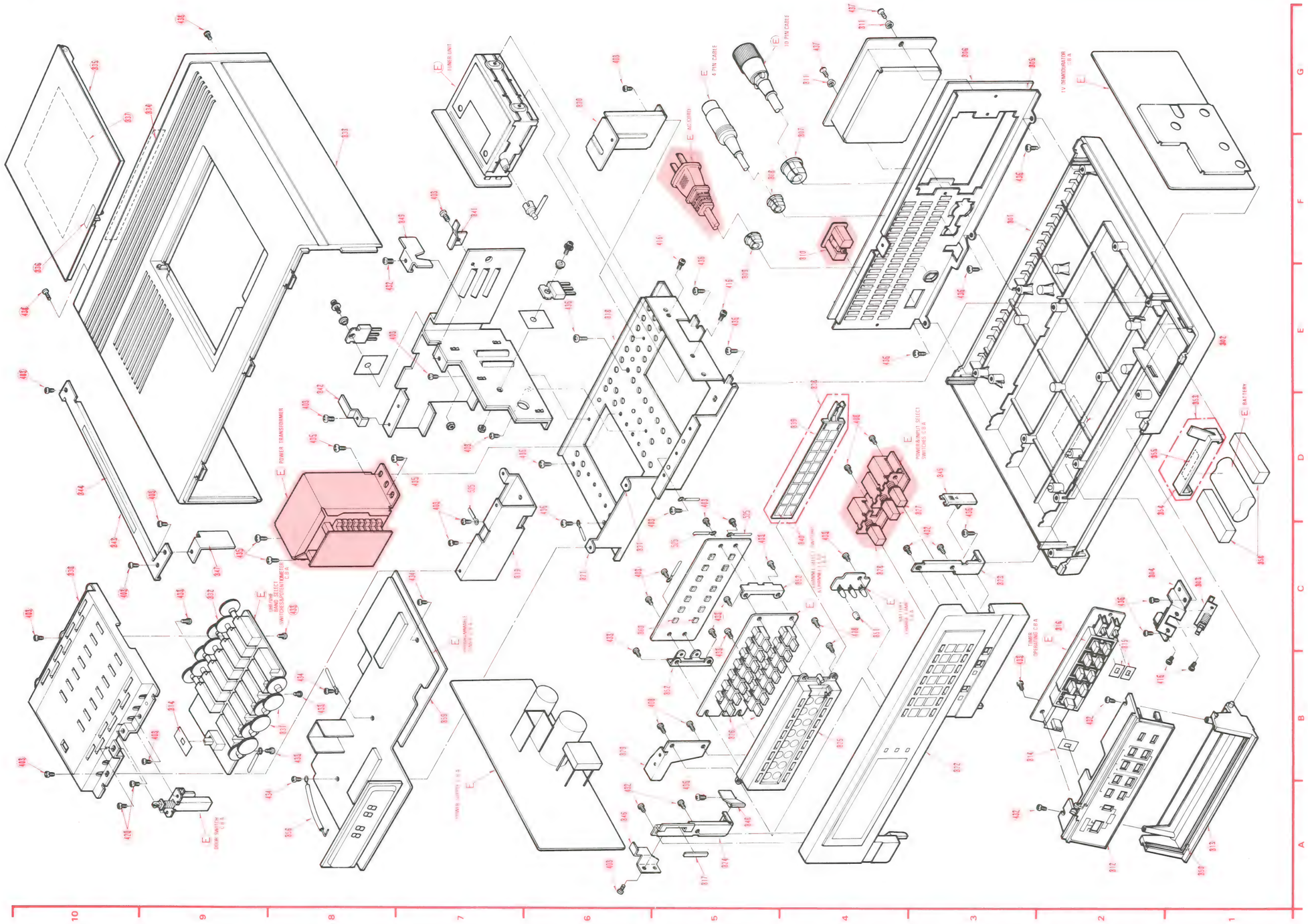


D E F G H I J K

EXPLODED VIEW

1 *Programmable Timer/Tuner Section*

IMPORTANT SAFETY NOTICE
Components identified by shade ⚠ have special characteristics important for safety.
When replacing any of these components, use only the original ones.



Note: Refer fo Vol.5,page 5-10 of PV-4000 Service Manual
for Packing Parts & Accessories Section.

MECHANICAL REPLACEMENT PARTS LIST

Model No. PV-A35P

Note: *Be sure to make your orders of replacement parts according to this list. Since all parts are available, availability colum indicates no mark.

Item No.	Drawing No.	Description	Pcs/ Set	Availability	Part No.	Remark
801	1	BOTTOM CASE UNIT	1		VYPS0299	
802	1	BOTTOM CASE CAUTION LABEL	1		VQL1044	
803	1	DOOR SWITCH	1		VSP0101	
804	1	DOOR SWITCH ANGLE	1		VMA4124	
805	1	REAR ANGLE	1		VMA4131	
806	1	REAR PANEL	1		VGNS0131	
807	1	BUSHING (10P)	1		VJF0027	
808	1	BUSHING (4P)	1		VMP5027	
809	1	BUSHING (AC)	1		VJF0017	
810	1	AC OUTLET	1		VJS1085	
811	1	WASHER	2		VGQ0170	
812	1	TIMER PANEL UNIT	1		VYPS0356	
813	1	TIMER DOOR	1		VKF0054	
814	1	SWITCH COVER (A)	2		VMF0193	
815	1	SWITCH COVER (C)	2		VMFS0037	
816	1	TUNING SWITCH BRACKET	1		VGT0163	
817	1	TIMER SPACER	2		VMFS0012	
818	1	MAIN FRAME	1		VMA4129	
819	1	TUNING PANEL ANGLE (FRONT)	1		VMAS0510	
820	1	TUNING PANEL ANGLE (REAR)	1		VMA4130	
821	1	SPACER	2		TMK76212	
822	1	FRONT PANEL (1) UNIT	1		VYPS0358	
823	1	FRONT ANGLE A(R)	1		VMA4126	
824	1	FRONT ANGLE B(L)	1		VMAS0348	
825	1	CHANNEL SELECTOR BRACKET	1		VGF0020	
826	1	CHANNEL KNOB	14		VGTS0025	
827	1	POWER SWITCH KNOB	2		VGT0154	
828	1	ANT. SELECTOR KNOB	1		VGT0155	
829	1	CHANNEL SELECTOR ANGLE UNIT	1		VXAS0131	
830	1	TUNING V.R CASE UNIT	1		VYPS0303	
831	1	TUNING V.R KNOB (A)	7		VGT0156	
832	1	TUNING V.R KNOB (B)	7		VGT0157	
833	1	TOP COVER UNIT	1		VYPS0305	
834	1	TOP COVER CAUTION LABEL	1		VQL1043	
835	1	TUNING DOOR	1		VYPS0306	
836	1	TUNING DOOR DECORATION	1		VGN1402	
837	1	TUNING CAUTION LABEL	1		VQL1040	
838	1	FILM HOLDER UNIT	1		VYQS0006	
839	1	FILM HOLDER	1		VGF0014	
840	1	VHF CHANNEL FILM	1		VGQ0142	
841	1	ANGLE (B)	1		VMAS0347	
842	1	ANGLE (C)	1		VMAS0351	
843	1	CENTER ANGLE	1		VMA4134	
844	1	FUSE CAUTION LABEL	1		VQL1041	
845	1	SIDE DOOR	1		VKF0052	
846	1	ANGLE (A)	1		VMAS0346	
847	1	ANGLE (FRONT)	1		VMAS0457	
848	1	DOOR LOCK SPRING	1		VMBS0059	
849	1	TUNING CASE HOLDER ANGLE	1		VMAS0444	
850	1	PUSH MARK	1		VGNS0272	
851	1	TUBE	10		T4B2065BJ	
852	1	IC. P.B. ANGLE	2		VMA4163	
853	1	BATTERY HOLDER UNIT	1		VYFS0025	
854	1	BATTERY HOLDER	1		VKF0059	
855	1	CAUTION LABEL	1		VQLS0260	
856	1	P.C.B. CONNECTION ROD	1		VXMS0004	
857	1	BATTERY CAUTION LABEL	1		VQLS0262	
858	1	BATTERY SPACER	2		VMA3871	
859	1	TIMER P.C.B. BARRIER	1		VMZS0041	
860	1	CHANNEL SELECT CUSHION	14		VMTS0019	
403	1	TAPPING SCREW,3x8	18		XTV3+8F	
408	1	TAPPING SCREW,3x12	6		XTV3+12B	
416	1	SCREW WITH WASHER,3x6	4		XYN3+C6S	
420	1	SCREW WITH WASHER,3x8	2		XYN3+F8S	
432	1	TAPPING SCREW,3x8	6		XTV3+8B	
433	1	TAPPING SCREW,3x8	11		XTV3+8BR	
434	1	TAPPING SCREW,3x8	3		XTV3+8FR	
435	1	TAPPING SCREW,4x10	4		XTV4+10F	
436	1	TAPPING SCREW,4x10	15		XTN4+10B	
437	1	SCREW,3x10	2		XSS3+10K	
438	1	BIND SCREW,3x8	2		XSB3+8FCWS	

Item No.	Drawing No.	Description	Pcs/ Set	Availability	Part No.	Remark
524	1	FASTENER	1		WZBV1	
525	1	CLAMPER	3		VJR3	
526	1	POLY SLIDER WASHER,4¢	2		XWXV4F9	

Note: Refer to Vol.5,page 5-14 (Mechanical Replacement Parts List)of PV-4000Service Manual for Packing Parts & Accessories.

ELECTRICAL REPLACEMENT PARTS LIST

Model No. PV-A35P

Note:
1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
   Components identified by shade have special characteristics important for safety. When replacing any of these components, use only the original ones.
3. Unless otherwise specified;
   All resistors are in OHMS (Ω), 1/8w, ±5% carbon, K=1,000Ω, M=1,000KΩ.
   All capacitors are in MICROFARADS (μF), ±10% P=μμF.
   All coils are in MICROHENRIES (μH), m=10³μ.
4. C.B.A: Circuit Board Assembly.
5. C.B: Circuit Board.

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
	VEPS0720A1	TV DEMODULATOR C.B.A.	1	
	VEPS0721A1	TUNNER CONNECTION C.B.A.	1	
	VEPS0113A1	POWER SUPPLY C.B.A.	1	
	VEPS0726A1	CHANNEL SELECT SWITCHES & CHANNEL L.E.D.S C.B.A.	1	
	VEPS00102A1	POWER & INPUT SELECT SWITCHES C.B.A.	1	
	VEPS0723A1	PROGRAMMABLE TIMER 2 WEEK/8 PRO C.B.A.	1	
	VEPS0724A1	TIMER OEPRATING C.B.A.	1	
	VEPS0725A1	CHANNEL SELECTOR C.B.A.	1	
	VEPS0114A1	POWER TR C.B.A.	1	
	VEPS00103A1	BATTERY CHARGE LAMPS C.B.A.	1	
	VEPS00104A1	DOOR SWITCH C.B.A.	1	
	VEPS0722A1	UHF/VHF BAND SELECT SWITCH & POTENTIOMETER C.B.A.	1	
		T.V DEMODULATOR C.B.A/ CHANNEL SELECTOR SWITCH SECTION		
		Integrated Circuits		
IC701	AN240P		1	
IC702	BN5111B		1	
		Transistors		
Q701	2SD636(Q)		1	
Q703	2SB641		1	
Q704	2SD778		1	
Q705	2SD637		1	
Q7001	2SD743 or 2SC1826		1	
Q7002	2SD637		1	
Q7003,7004	2SB641		2	
Q7006	2SB642		1	
Q7007	2SC1685C or 2SD637C		1	
Q7008	2SD637		1	
		Diodes		
D701-704	MA150		4	
D7002	PC574JK	Zener	1	
D7003	MA161		1	
D7004,7005	MA150		2	
		Resistors		
R701	ERD10TJ222	2.2K	1	
R703	ERD10TJ102	1K	1	
R704	ERD10TJ563	56K	1	
R705	ERD10TJ102	1K	1	
R706	EVNK6AA00B23	Variable 2K	1	
R707	ERD10TJ102	1K	1	
R708	ERD10TJ102	1K	1	
R709	ERD10TJ272	2.7K	1	
R710	ERD10TJ391	390	1	
R711	ERD10TJ52	1.5K	1	
R712	ERD10TJ153	15K	1	
R713	ERD10TJ182	1.8K	1	
R714,715	ERD10TJ333	33K	2	
R716	ERD10TG1001	1K	1	
R717	ERD25TJ225	1/4W 2.2M	1	
R718	EVNK6AA00B14	Variable 10K	1	
R719	ERD10TJ472	4.7K	1	
R720	ERD10TJ183	18K	1	
R721	ERD10TJ103	10K	1	
R723	ERD10TJ103	10K	1	
R724	ERD10TJ680	68	1	
R725	ERD10TJ822	8.2K	1	
R726	ERD10TJ391	390	1	
R727	ERD10TJ680	68	1	
R728	ERD10TJ102	1K	1	
R729	ERD10TJ150	15	1	
R730	ERD25FJ220	1/4W 22	1	
R731	EVNK6AA00B14	Variable 10K	1	
R732	ERD10TJ822	8.2K	1	
R733	ERD10TJ222	2.2K	1	
R734	ERD10TJ103	10K	1	
R735	ERD10TJ332	3.3K	1	
R736	ERD10TJ561	560	1	
R737	ERD10TJ683	68K	1	
R738	ERD10TJ682	6.8K	1	
R739	ERD10TJ472	4.7K	1	
R740	ERD10TJ332	3.3K	1	
R741	ERD10TJ822	8.2K	1	
R742	ERD10TJ333	33K	1	
R743	EVNK6AA00B24	Variable 20K	1	
R744	ERD10TG6800	6.8K	1	
R745	ERD10TJ470	47	1	
R746	ERD10TJ563	56K	1	
R750	ERD10TJ561	560	1	
R7001	ERD10TG4022	40.2K	1	
R7002	ERD10TG3902	39K	1	
R7003	ERD1ANJ821H	Metal Oxide Film 1W 820	1	
R7004	ERG2ANJ391H	Metal Oxide Film 2W 390	1	
R7005	ERD10TJ223	22K	1	
R7006	ERD10TJ153	15K	1	
R7007	ERD10TJ223	22K	1	
R7011	ERD10TJ223	22K	1	
R7012	ERD10TJ101	100	1	
R7013	ERG1ANJ152H	Metal Oxide Film 1W 1.5K	1	
R7014	ERD10TJ474	470K	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
R7015	ERD10TJ154	150K	1	
R7017	ERD10TJ223	22K	1	
R7018	ERD10TJ473	47K	1	
		Capacitors		
C704-709	ECKW1H103PF	Ceramic 50V 0.01	6	
C710	ECCW1H020CC	Ceramic 50V 2P	1	
C711	ECCW1H820JR	Ceramic 50V 82P	1	
C712	ECCW1H220JC	Ceramic 50V 22P	1	
C713	ECCW1H020CC	Ceramic 50V 2P	1	
C714	ECCW1H101KP	Ceramic 50V 100P	1	
C715	ECCW1H100DC	Ceramic 50V 10P	1	
C716	ECEA1ES3R3	Electrolytic 25V 3.3	1	
C717	ECKW1H103PF	Ceramic 50V 0.01	1	
C718	ECQM1H823KZ	Polyester Film 50V 0.082	1	
C719	ECEA1HS2R2	Electrolytic 50V 2.2	1	
C720	ECKW1H102KB	Ceramic 50V 0.001	1	
C721	ECEA50ZR33	Electrolytic 50V 0.33	1	
C722	ECEA1HS2R2	Electrolytic 50V 22	1	
C723	ECKW1H103PF	Ceramic 50V 0.01	1	
C724	ECSZ25EF1N	Tantalum 25V 1	1	
C725	ECEA1CS100	Electrolytic 16V 10	1	
C726	ECEA25N3R3	Electrolytic 25V 3.3	1	
C727	ECCW1H050CC	Ceramic 50V 5P	1	
C728	ECCW1H820JR	Ceramic 50V 82P	1	
C729	ECQM1H473KZ	Polyester Film 50V 0.047	1	
C730	ECEA1HS010	Electrolytic 50V 1	1	
C731	ECCW1H180JC	Ceramic 50V 18P	1	
C732	ECEA16N4R7	Electrolytic 16V 4.7	1	
C733	ECEA1CS471	Electrolytic 16V 470	1	
C734	ECKW1H103PF	Ceramic 50V 0.01	1	
C735	ECQM1H153KZ	Polyester Film 50V 0.015	1	
C736	ECKW1H103PF	Ceramic 50V 0.01	1	
C737	ECCW1H560JC	Ceramic 50V 56P	1	
C738	ECKW1H103PF	Ceramic 50V 0.01	1	
C739	ECEA1CS100	Electrolytic 16V 10	1	
C740	ECEA50N01	Electrolytic 50V 1	1	
C742	ECEA1CS220	Electrolytic 16V 22	1	
C743	ECCW1H270JC	Ceramic 50V 27P	1	
C746	ECKW1H103PF or TCKW1H103PF	Ceramic 50V 0.01	1	
C7006	ECEA1FS100	Electrolytic 25V 10	1	
C7007	ECKW1H103PF	Ceramic 50V 0.01	1	
C7008	ECEA1HS010	Electrolytic 50V 1	1	
C7009	ECKW1H103PF	Ceramic 50V 0.01	1	
C7010	ECQM1H563KZ	Polyester Film 50V 0.056	1	
		Coils		
L701	VLQR82KB	0.82	1	
L702	VLQ80W022K		1	
L703	VLQ80W270K	27	1	
L704	VLQ80W680K	68	1	
L705	VLQ80W390K	39	1	
L706	VLQ80W620K	62	1	
L707	VLQ330JB	33	1	
L708	VLQ80W150K	15	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Filters		
FL701	EFCS4R5MS3 or SFE45MB4	Ceramic	1	
FL702	EFCS4R5MW3	Ceramic	1	
FL703	EFCA4R5MC3A	Ceramic Discriminator	1	
		Transformers		
T701	EULHLB440	HL Filter	1	
T702	EIM3A423	I.F.T.	1	
T703	TL167321	I.F.T.	1	
T704	TL181312	I.F.T.	1	
T705	TLS62313	S.I.F.	1	
		Miscellaneous		
P7001	VSPS0097	8P Connector	1	
P7002	VSPS0091	10P Connector	1	
P7003	VSPS0097	8P Connector	1	
		TUNNER CONNECTION C.B.A.		
		Capacitors		
C701	ECEA50ZR47	Electrolytic 50V 0.47	1	
C702	ECKW1H103PF	Ceramic 50V 0.01	1	
C703	ECEA1ES4R7	Electrolytic 25V 4.7	1	
C741	ECEA1ES100	Electrolytic 25V 10	1	
C7002	ECKW1H103PF	Ceramic 50V 0.01	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		POWER SUPPLY C.B.A.		
		Integrated Circuits		
IC101	μPC141C		1	
IC102	μPC151C		1	
		Transistors		
Q102	2SB761		1	
Q103	2SD638		1	
Q104,105	2SD636(Q,R)		2	
Q106	2SB641(Q,R)		1	
Q107	2SA699A(P,Q,R)		1	
Q108	2SB641(Q,R)		1	
Q110	2SD636(Q,R)		1	
Q111	2SB641(Q,R)		1	
Q112	2SD636(Q,R)		1	
Q113-116	2SD637		4	
		Diodes		
D101,102	RM1ZM or	Si	2	
	ERB12-02			
D103	MI-152R	Si	1	
D104	MI-152	Si	1	
D106	RD3,9EB	Zener	1	
D107	RB-602	Commutator	1	
D108,109	MA150	Si	1	
D111	MA150		1	
D112	ERC81-004		1	
D114	MA150		1	
D115	MA161		1	
D117-119	MA150		3	
D120	MA162		1	
D121	MA150		1	
D123	MA150		1	
D124	MA150	Si	1	
		Resistors		
R102	ERQ12HJ2R2	Solid 1/2W 2.2	1	
R103	ERD10TJ102	1K	1	
R104	EVNK6AA00B13	Variable 1K	1	
R105	ERD10TJ561	560	1	
R106	ERD10TJ331	330	1	
R107	ERD10TJ121	120	1	
R108	ERD10TJ102	1K	1	
R109	ERD10TJ121	120	1	
R110	ERD10TJ331	330	1	
R111	ERD10TJ223	22K	1	
R112	ERD10TJ392	3.9K	1	
R113	ERF3AKR56	3W 0.56	1	
R114	ERD10TJ152	1.5K	1	
R115	ERD10TJ683	68K	1	
R116	ERD10TJ123	12K	1	
R117	ERD10TJ102	1K	1	
R118	ERD10TJ182	1.8K	1	
R119	ERD10TJ221	220	1	
R120	ERD10TJ332	3.3K	1	
R121	ERD10TJ102	1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
R122	EVNK6AA00B22	Variable 200	1	
R123	ERD10TJ511	510	1	
R124	ERD10TJ223	22K	1	
R125	ERD10TJ392	3.9K	1	
R126	ERD10TJ223	22K	1	
R127	ERD10TJ103	10K	1	
R128	ERD10TJ822	8.2K	1	
R129	ERD10TJ224	220K	1	
R130	ERD10TJ821	820	1	
R131	ERD10TJ223	22K	1	
R132	ERD10TJ103	10K	1	
R133	ERD10TJ272	2.7K	1	
R134	ERD10TJ332	3.3K	1	
R138	ERD10TJ102	1K	1	
R140,141	ERD10TJ103	10K	2	
R142,143	ERD10TJ124	120K	2	
R144,145	ERD10TJ823	82K	2	
R146,147	ERD10TJ562	5.6K	2	
R148	ERD10TJ223	22K	1	
R149	ERD10TJ103	10K	1	
R150	ERD10TJ152	1.5K	1	
R151	ERD10TJ222	2.2K	1	
R152	ERD10TJ333	33K	1	
R153	ERD10TJ332	3.3K	1	
R154	ERD10TJ683	68K	1	
R157,158	ERD10TJ103	10K	2	
R159	ERD10TJ331	330	1	
R160	ERC12ZGK275D	Solid 1/2W 2.7M	1	
		Capacitors		
C101,102	ECKW2H103PE8	Ceramic 500V 0.01	2	
C103	ECEA1JS471	Electrolytic 63V 470	1	
C104	ECEA1JS331	Electrolytic 63V 330	1	
C105-108	ECKW1H103PF	Ceramic 50V 0.01	4	
C110	ECEA1CS102	Electrolytic 15V 1000	1	
C111	ECEA1CS470	Electrolytic 16V 47	1	
C112	ECKW1H103PF	Ceramic 50V 0.01	1	
C113	ECEA1CS470	Electrolytic 16V 47	1	
C114-117	ECKW1H103PF	Ceramic 50V 0.01	4	
C118	ECET35R472SW	Electrolytic 50V 4700	1	
C119	ECCW1H101KC	Ceramic 50V 100P	1	
C120	ECQM1H472KZ	Polyester Film 50V 0.0047	1	
C121	ECEA1HS010	Electrolytic 50V 1	1	
C122	ECEA1HS100	Electrolytic 50V 10	1	
C123	ECEA1HS3R3	Electrolytic 50V 3.3	1	
C124	ECKW1H331KB	Ceramic 50V 330P	1	
C125	ECEA1ES3R3	Electrolytic 25V 3.3	1	
C126	ECEA1ES100	Electrolytic 25V 10	1	
C127	ECKW1H103PF	Ceramic 50V 0.01	1	
C128	ECEA1CS470	Electrolytic 15V 47	1	
C129	ECEA1JS010	Electrolytic 63V 1	1	
C130,131	ECEA1HS010	Electrolytic 50V 1	2	
C133	ECEA1HS010	Electrolytic 50V 1	1	
C134	ECEA1E101	Electrolytic 25V 100	1	
C135,136	ECEA1HS010	Electrolytic 50V 1	2	
C137	ECEA50ZR33	Electrolytic 50V 0.33	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Miscellaneous		
F101	XBA1F10NU14A	Fuse 1A	1	
F102	XBA1F60NU14A	Fuse 6A	1	
F104	XBA1F20NU14A	Fuse 2A	1	
	TJC6319	Fuse Holder	6	
	TEL302-5X	Connector Pin	8	
	TEL302	GT Pin	2	
P103	VSPS0090	5P Connector	1	
P104,105	VSPS0089	3P Connector	2	
P106	VSPS0090	5P Connector	1	
P107,108	VSPS0089	3P Connector	2	
TH110	ERTD2ZHL332S	Thermistor	1	
		CHANNEL SELECT SWITCHES & CHANNEL L.E.D.S C.B.A.		
		Diodes		
D7303	MA150		1	
D7304	MA161C		1	
D7305	MA150		1	
D7306	MA161C		1	
D7307	MA150		1	
D7308	MA161C		1	
D7309	MA150		1	
D7310	MA161C		1	
D7311	MA150		1	
D7312	MA161		1	
D7313	MA150		1	
D7314	MA161C		1	
D7315	MA150		1	
D7316	MA161C		1	
D7319	MA150		1	
D7320	MA161C		1	
D7321	MA150		1	
D7322	MA161C		1	
D7323	MA150		1	
D7324	MA161C		1	
D7325	MA150		1	
D7326	MA161C		1	
D7327	MA150		1	
D7328	MA161C		1	
D7329	MA150		1	
D7330	MA161C		1	
D7331	MA150		1	
D7332	MA161C		1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Resistors		
R7302-7308	EWEU2A016B24	Variable 20K	7	
R7310-7316	EWEU2A016B24	Variable 20K	7	
R7317	ERD10TJ681	680	1	
		Switches		
SW7302-7308	VSS0050	VHF/UHF Channel Select	7	
		Switches		
SW7310-7316	VSS0050	VHF/UHF Channel Select	7	
		Switches		
SW7317	ESD3228	AFC Switch	1	
SW7318	VSP0099	Door Switch	1	
		POWER & INPUT SELECT SWITCHES C.B.A.		
		Diodes		
D6601	LN31GPH	L.E.D.	1	
D6602	LN21RPH	L.E.D.	1	
		Switches		
SW6601-6603	ESB75332	Power Switch	3	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		PROGRAMMABLE TIMER C.B.A.		
		Integrated Circuits		
IC6705	MN1400VL		1	
IC6706	MN1405VM		1	
IC6707	MN1206A		1	
		Transistors		
Q6701-6719	2SA1023(Q,R)		19	
	or 2SB726(R,S,T)			
Q6720	2SB641(Q,R)		1	
	or 2SA733(Q,R)			
Q6721-6727	2SD636(Q,R)		7	
Q6728	2SA719(Q,R,S)		1	
	or 2SB643(Q,R,S)			
Q6729	2SD743(O,P,Q)		1	
	or 2SD762(O,P,Q)			
Q6730,6731	2SD636(Q,R)		2	
Q6732	2SD638(R,S,T)		1	
	or 2SC1317(R,S,T)			
Q6733	2SC1384(Q,R)		1	
Q6734-6736	2SD636(Q,R)		3	
		Diodes		
D6717-6732	MA150		16	
D6734	ERA01-13R		1	
D6735	MA150		1	
D6736	ERA81-004G		1	
D6737	RU1Z or		1	
	ERB28-02 or			
	ERB28-04			
D6738	MA522(R,S)		1	
D6739	MA150		1	
D6740	RD5,6JB	Zener	1	
D6741	RD6,2JB	Zener	1	
D6742	ECQA01-108R		1	
D6743	ERA81-004G		1	
D6744	RD11EB		1	
D6745	RD20EB	Zener	1	
D6746	MA150		1	
D6749	MA150		1	
D6750	MA150FV		1	
D6751	MA150		1	
D6755	RD6,8EB	Zener	1	
D6756	MA150		1	
		Resistors		
R6701	ERD10TJ332	3.3K	1	
R6702	ERD10TJ103	10K	1	
R6703	ERD10TJ272	2.7K	1	
R6704-6721	ERD10TJ273	27K	18	
R6722	ERD10TJ273	27K	1	
R6723-6737	ERD10TJ273	27K	15	
R6738	ERD10TJ473	47K	1	
R6739	ERD10TJ153	15K	1	
R6740,6741	ERD10TJ103	10K	2	
R6742	ERD10TJ563	56K	1	
R6743,6744	ERD10TJ103	10K	2	
R6745	ERD10TJ222	2.2K	1	
R6746	ERD10TJ681	680	1	
R6748	ERG1AN100C	Metal Oxide Film 1W 10	1	
R6749,6750	ERD10TJ334	330K	2	
R6751	ERD10TJ102	1K	1	
R6752	ERD10TJ104	100K	1	
R6753	ERD10TJ473	47K	1	
R6754	ERD25TJ392	1/4W 3.9K	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
R6755	ERD10TJ104	100K	1	
R6756	ERD25TJ562	1/4W 5.6K	1	
R6757	ERD10TJ101	100	1	
R6758	ERD10TJ104	100K	1	
R6759	ERD10TJ472	4.7K	1	
R6760	ERD10TJ104	100K	1	
R6762	ERD10TJ104	100K	1	
R6763	ERD10TJ473	47K	1	
R6764	ERD25TJ681	1/4W 680	1	
R6765	ERD10TJ222	2.2K	1	
R6766	ERD10TJ102	1K	1	
R6767	ERD10TJ472	4.7K	1	
R6768	ERD10TJ103	10K	1	
R6769	ERD10TJ273	27K	1	
R6770	ERD10TJ181	180	1	
R6771	ERD10TJ102	1K	1	
R6773	ERD10TJ103	10K	1	
R6774	EVN38CA00B53	Variable 50	1	
R6775,6776	ERD10TJ562	5.6K	2	
R6777	ERD10TJ331	330	1	
R6778	ERD10TJ102	1K	1	
R6779	ERD10TJ472	4.7K	1	
R6780	ERD10TJ684	680K	1	
R6781,6782	ERD10TJ561	560	2	
R6783	ERD10TJ331	330	1	
R6784	ERD10TJ562	5.6K	1	
R6785	ERD10TJ153	15K	1	
R6786	ERD25TJ100	1/4W 10	1	
R6787,6788	ERD10TJ102	1K	2	
R6791-6793	ERD10TJ472	4.7K	3	
R6794	ERD25TJ472	1/4W 4.7K	1	
R6795	ERD25TJ5R6	1/4W 5.6	1	
R6796	ERD10TJ104	100K	1	
RX6703,6704	EXBP88473M	Complex Compo. 47K	2	
		(Resistor)		
RX6706	EXBP88103M	Complex Compo. 10K	1	
		(Resistor)		
		Capacitors		
C6701	ECEA0JS470	Electrolytic 6.3V 47	1	
C6702	ECEA1ES4R7	Electrolytic 25V 4.7	1	
	or ECEA1ES4R7S			
C6703	ECEA1CS100	Electrolytic 16V 10	1	
C6705	ECV1ZW20X32	Trimmer 20P	1	
C6706	ECEA1HS3R3	Electrolytic 50V 3.3	1	
C6707	ECEA1CS100	Electrolytic 16V 10	1	
C6708	ECEA1ES330	Electrolytic 25V 33	1	
C6709	ECQM1H333MZ	Polyester Film 50V 0.0033	1	
C6710	ECEA1CS100	Electrolytic 16V 10	1	
C6711	ECKW1H103PF	Ceramic 50V 0.01	1	
C6712	ECEA1AS102	Electrolytic 10V 1000	1	
C6713	ECEA1CS220	Electrolytic 16V 22	1	
C6714	ECEA1CS100	Electrolytic 16V 10	1	
C6715	ECKW1H471KB	Ceramic 50V 470P	1	
C6716	ECEA0JS101	Electrolytic 6.3V 100	1	
C6717,6718	ECKW1H103PF	Ceramic 50V 0.01	2	
C6719	ECEA1AS101	Electrolytic 10V 100	1	
C6720	ECCW1H470K	Ceramic 50V 47P	1	
C6721	ECCW1H030CC	Ceramic 50V 3P	1	
	or ECCW1H050CC5			
C6722,6723	ECKW1H102KB	Ceramic 50V 0.001	2	
C6724	ECQM1H472MZ	Polyester Film 50V 0.0047	1	
C6725	ECKW1H103PF	Ceramic 50V 0.01	1	
C6726	ECEA1CS100	Electrolytic 16V 10	1	
C6728	ECEA1CS100	Electrolytic 16V 10	1	
C6729	ECEA1AS102	Electrolytic 10V 1000	1	
	or ECEA1AS102S			

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Miscellaneous		
L6701	VLQ80F101K	Coil	1	
T6701	VTP0043	DC-DC Converter	1	
		Trans.		
X6701	VSX0071	Crystal	1	
DP6701	VSL0003	Display Tube	1	
	TJE98101	Check Terminal	1	
	VSC0486	Heat Sink Plate	1	
P6701	VJPS0097	8P Connector	1	
P6702	VJP1093	4P Connector	1	
P6703	VJPS0091	10P Connector	1	
P6704	VJPS1141	2P Connector	1	
P6705	VJPS1144	6P Connector	1	
P6706	VJPS1145	8P Connector	1	
P6707	VJPS1141	2P Connector	1	
P6708	VJPS1147	12P Connector	1	
P6709	VJPS1146	10P Connector	1	
F6701	XBA1C10NU100	Fuse 1A	1	
	TJC6320	Fuse Holder	2	
		TIMER OPERATING C.B.A.		
		Switches		
SW6701	ESD1423	Slide	1	
SW6702-6710	EVQ-PXR04K	Timer	9	
	or VSP0102			
SW6711,6712	ESD14125	Slide	2	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		CHANNEL SELECTOR C.B.A.		
		Integrated Circuits		
IC6701-6704	DN852		4	
	or DN852P			
		Diodes		
D6701-6714	MA161C		14	
D6752,6753	MA150		2	
		Miscellaneous		
RX6701,6702	EXBP88103M	Complex Comp. 10K	2	
		(Resistor)		
		POWER TR C.B.A.		
Q109,117	2SC2665	Power TR.	2	
R155,156	ERD10TJ470	Resistor 47	2	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		BATTERY CHARGE LAMPS C.B.A.		
		Diodes		
D6603	LN31GPHL	L.E.D.	1	
D6604,6605	LN21RPHL	L.E.D.	2	
		UHF/VHF BAND SELECT SWITCH & POTENTIOMETER C.B.A.		
		Diodes		
D7202-7208	LN31GCP-UHL	L.E.D.	7	
D7210-7216	LN31GCP-UHL	L.E.D.	7	
		Resistors		
R7202-7208	ERD10TJ181	180	7	
R7210-7216	ERD10TJ181	180	7	
		Switches		
SW7206-7208	EVQ-Q7R13K	Channel Switch	7	
SW7210-7216	EVQ-Q7R13K	Channel Switch	7	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		ELECTRICAL PARTS LOCATED ON CHASSIS		
	VFAS0001	Battery	1	
	TNV76704F2	Tuner	1	
	ETP66PU5A	Power Transformer	1	
	ENPD607	Antenna Terminal	1	
	VJA0108	AC Cord	1	
	VMAS0347	P.B. Angle	1	
	VJJ0020	Pin Jack	1	
	VMAS0351	P.B. Angle	1	
	VECS0038	4P Cable	1	
	VECS0039	10P Cable	1	
	VME0049	Bushing	1	
	VSQS0012	MICA	2	
	VSC0477	Heat Sink Plate	1	
	VSC0485	Heat Sink Plate	1	
	or VSCS0059			
	VSCS0068	Shield Case	1	
	VSC0479	Shield Case	1	
	VSC0480	Shield Case	1	
	XTV3+8B	Tapping Screw (3x8)	2	
	XYN3+F12FNS	Screw With Washer (3x12)	3	
	N060	Washer	1	
	N050A	Nut	1	
	XNG3	Nut	2	
	VMX0185	L.E.D Spacer	3	
	TJE98101	Check Terminal	3	
	XYN3+F12FNS	Screw With Washer (3x12)	1	
	N060	Washer	1	
	N060	Nut	1	
	TJC6320	Fuse Holder	2	